

FINAL ENVIRONMENTAL IMPACT STATEMENT

**408 PERMISSION AND 404 PERMIT TO THREE RIVERS
LEVEE IMPROVEMENT AUTHORITY**

FOR THE

**FEATHER RIVER LEVEE REPAIR PROJECT, CALIFORNIA
SEGMENT 2**

**APPENDIX F – PLANNED RESOLUTION OF POTENTIAL
ENVIRONMENTAL HAZARDS IN THE PROJECT AREA**

October 2008

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October 2008

Planned Resolution of Potential Environmental Hazards in the Project Area

Memo

To: John Suazo USACE Planning Branch, Brian Vierria USACE Regulatory Branch
From: Anja Kelsey, TRLIA Environmental Manager
Date: 2/28/2008
Re: Feather River Setback, Phase II Site Assessment Actions by TRLIA

Three Rivers Levee Improvement Authority (TRLIA) completed a Phase I Environmental Site Assessment (Phase I ESA) in August 2007 for TRLIA's Feather River Levee Segment 2 Setback Project, as part of a CEQA mitigation requirement for the Feather River Levee Repair Project (FRLRP). In follow-up to the Phase 1 ESA recommendations, TRLIA performed soil sampling and chemical testing of soils from the setback area and other potential borrow areas in general conformance with the requirements for a Phase 2 Site Assessment per ASTM E1903. A memorandum was prepared and included in the January 2008 Geotechnical Data Report (Volume 5, Appendix F8). A copy of this memorandum is provided in Attachment 1.

A summary of the environmental conditions identified in the Phase I ESA is presented in tabular form in Attachment 2. This table also details the Phase I ESA recommendations to resolve these environmental conditions and TRLIA's proposed approach to implement the recommendations. In summary, TRLIA proposes to proceed to investigate the two former underground storage tank (UST) locations within the project area to confirm that the USTs were removed as reported and to screen the nearby soils for the potential presence of residual petroleum contamination:

- 2018 Feather River Boulevard, Flores Property (APN#016-010-010); an unknown number of UST's were identified on this property and removed after 1988, according to the Yuba County Environmental Health Department. No leakage was reported.
- 712 Murphy Road, Danna and Danna Inc. (APN#013-00-025); a UST was located on the former dairy farm at this address and was removed around 1990. The condition of the surrounding soil is not known. No leakage was reported.

This additional Phase 2 activity will include (1) investigating the reported locations of the removed tanks through the excavation of several test pits and (2) field screening and classification of soils sampled from the test pits. If there is evidence of contamination, TRLIA will conduct chemical testing to determine if the concentrations of contaminants exceed allowable levels and develop plans for the cleanup of the these project sites. TRLIA is currently finalizing the scope for the initial field work and sampling, which are planned to be performed in March 2008.

As indicated in Attachment 2, remediation of all other identified environmental conditions affecting the project site will be implemented by TRLIA's construction contractor under the supervision of TRLIA inspectors. The work primarily will include the removal and off-site disposal of above-ground tanks, containers, drums, surficial stained soils, and non-agricultural burning ash-and-debris piles. Upon completion of the removals, TRLIA inspectors will perform soil screening to confirm petroleum staining was limited to the surface and has been removed. If there is evidence of additional contamination (e.g. stained soils, petroleum odors, etc), TRLIA will conduct environmental sampling and testing of soil samples and implement further cleanup activities.

Please call me if you have any questions.

Anja Kelsey

Attachments: 1- Memorandum on Environmental Test Pits
2- Planned Resolution – Phase 1 ESA Recommendations

Memo

To: Alberto Pujol, Dan Wanket
From: Andrew Adinolfi
Date: 12/28/2007
Re: Environmental Test Pits, Proposed Northwestern, Eastern, and Ella Road Borrow Areas
Feather River Setback Levee
GEI Project Number – 050115, Task 5015

This memorandum presents the results of soil sampling and chemical testing performed in September and November 2007 within the proposed Northwestern, Eastern, and Ella Road Borrow Areas for the Feather River Setback Levee. The purpose of sampling was to evaluate soil for suitability as borrow material relative to the presence of hazardous materials.

Based on the data and analyses presented in this memo, the subject material is environmentally suitable for its intended use as borrow for the setback levee project. In summary, no pesticides, PCBs, or cyanide were detected in any of the samples. Metals were detected at levels that are attributable to natural conditions for the area, and their presence in borrow material poses no increase in human health or ecological risk.

Field Activities Summary

The proposed borrow areas were inspected in June 2007 as part of the Phase I Environmental site Assessment (ESA). The test pit program was implemented in accordance with a work plan dated September 11, 2007, except that test pit locations were modified slightly due to a reduction in size of the Northwestern borrow area, and the addition of a relatively small proposed borrow area (Ella Road Borrow Area). Environmental test pits in the Northwestern borrow area were relocated to be within the redrawn location. Two environmental test pits were excavated within the small Ella Road borrow area.

Samples were collected from the excavated test pits using a backhoe. Environmental samples were collected for chemical analysis from the test pits listed below (Figure 1).

Number of Test Pits	Site	Test Pits	Date
2	Ella Road	TP-ENV-ELLA-505, 509	9/25/07
8	Northwestern	TP-ENV-515, 516, 517 TP-ENV-NAUMES 317, 338, 391, 425, 499	11/2/07 and 11/6/07
5	Eastern	TP-ENV-518 through 522	11/5/07 and 11/6/07

One sample was collected for chemical analysis per test pit listed above. Samples were composited from all depths excluding top soil. Nordic Industries (Olivehurst, California) and Sannar's Down Under Construction (Loma Rica, California) performed the excavations.

Phase I Environmental Site Assessment and Test Pit Observations

A Phase I ESA was performed for the area of the proposed setback levee project, including the potential borrow areas. The ESA included site historical research, regulatory file reviews, site inspections, and

owner interviews. Based on the ESA findings, there are no indications that uncontaminated hazardous materials are present in significant amounts within the borrow areas. No visual evidence of hazardous materials was observed in the proposed borrow areas during a site inspection, with the following exceptions:

- Petroleum storage in aboveground and underground storage tanks at 2267 Feather River Boulevard, and on land known as the Cummings property (TRLIA Parcel 121d) on Country Club Ave.
- Pesticide storage in small quantities at 2267 Feather River Boulevard.

No significant soil staining was observed in the area of the petroleum storage tanks. Residences are located within the proposed Eastern borrow area along Country Club Road. The potential borrow areas have been used for agricultural purposes, primarily for orchards and cattle. There is no indication that industries have been present within or near the proposed borrow areas, or that the borrow areas contain anthropogenic fill. Historic information indicates that elevated mercury levels may be present regionally due to its use in gold mining and associated discharges of tailings into the area watershed. Further details are provided in the Phase I ESA.

Soil observed in the borrow areas generally consisted of top soil underlain by tan to olive-colored silty sand and sandy silt. No unnatural odors or staining were observed in the test pits. Test pit TP-520 was located approximately 330 east of the farmhouse at 2267 Feather River Boulevard and associated fuel storage. TP-518 was located in the vicinity of a farmhouse that was recently demolished. No visual or olfactory evidence of petroleum was apparent in the test pits near farm buildings and facilities, or at any other test pit in the proposed borrow areas. No evidence of hazardous materials was apparent in any of the 15 subject test pits, or in any other of the geotechnical test pits excavated in the proposed borrow areas.

Analytical Results Summary

As specified in the work plan, soil samples were analyzed by Alpha Labs of Sparks, Nevada (California-certified) for:

- Pesticides
- Polychlorinated Biphenyls (PCBs)
- RCRA Priority Pollutant 13 Metals
- Total Cyanide

Table 1 is a summary of the chemical testing results. Analytical testing results are included as Attachment A.

Comparison to Regulatory Guidance

Chemical testing results were compared to regional background concentrations [Hunter et al., 2005; USGS, 2001], human health screening criteria (EPA Region 9 Preliminary Remediation Goals [PRGs]), and ecological screening criteria [EPA, 2007; Efroymson et al, 1997a,b&c]. The comparisons including calculation details are shown in Table 2.

Exposure Point Concentrations (EPCs) were developed from the testing results. EPCs represent a concentration at which receptors (humans, wildlife, and aquatic life) that may come in contact with levee soil may be exposed to. If an analyte was not detected in a sample, a value of one-half of the detection limit was used to represent the sample concentration. If all data were all nondetect, the EPC was the average of ½ the reporting limit. If the detection frequency was 85% or higher, the upper 95th confidence limit (UCL) was calculated. If the detection frequency was less than 85%, the maximum detected value was used to represent the EPC. Averaging was deemed appropriate where the data showed a normal

distribution or all data were nondetect. Arsenic, cadmium and mercury were detected infrequently; therefore, their maximum detected concentrations were used as the EPCs.

As shown in Table 2, no pesticides, PCBs, or cyanide was detected in any of the samples. The detection limits are below the screening criteria presented in Table 1. There is no indication that any regulatory or screening guidance values are exceeded. Because the method detection limits (MDLs) for these compounds are below the PRGs, the soil can be deemed suitable for on-site use as borrow relative to these compounds.

All metals concentrations were below the EPA human health risk-based PRGs except for iron, for which the EPC slightly exceeded the PRG but is consistent with background as described below. The PRGs are guidance levels establishing cleanup goals for contaminated sites to restore properties for residential use.

Metals EPCs were within the range of published background concentrations [Hunter et al. 2005; Shacklette, 1984] except for cadmium, for which the exceedance is considered minor. Cadmium was detected in only one of the 15 samples at 4.9 mg/kg, and because it was not detected in any other samples, the single detection was used as the EPC. The EPC for cadmium is on the same order of magnitude as the background, and below the PRG. There is no indication of a significant unnatural source of cadmium in the vicinity of the detection. The location of the cadmium detection (TP518) is in the vicinity of a former farmhouse on property owned by J.T.S. (formerly owned by Heir) that has historically been used as an orchard.

The EPC for mercury is consistent with published background levels for the area. The mercury is likely naturally occurring, but may be in part present due to the past historical use of mercury in processing gold ore, as described in the Phase I ESA.

As shown in Table 2, the EPCs for chromium and nickel are slightly above background levels published by Hunter [Hunter et al., 2005]; however, regional data presented by Shacklette [Shacklette, 1984] indicate that background concentrations of cadmium and nickel are higher in northern and northwestern California, including the area of the site. The EPCs for chromium and nickel are consistent with the regional data for this area.

Metals EPCs were within the range of ecological screening criteria except for cadmium, chromium, copper, mercury and nickel. As described above, chromium, copper, mercury, and nickel concentrations are consistent with background or regional concentrations in surficial soil. Because soil is not proposed for use in an area with potentially different background concentrations, no increased risk of exposure to these metals will be posed by the use of the subject soil as borrow material. The presence of cadmium at one location is not likely to cause significant exposure concerns, especially because soil with elevated cadmium levels will be in combination with the remainder of the proposed borrow material in which no cadmium was detected. There is no indication that the cadmium is present in large quantities as cadmium is not used in pesticides and there are no industries in the area of TP518. No adverse effects on wildlife in the areas proposed for borrow have been observed.

Conclusions

No evidence of hazardous materials was identified in the potential borrow areas during a Phase I ESA and in the test pits summarized herein, with the exception of petroleum storage tanks and pesticide storage tanks as described in the Phase I ESA report. Chemical testing of 15 soil samples from within the potential borrow areas indicate that no detectable concentrations of pesticides, PCBs, or cyanide are present. Metals detected in the soil appear to be present at naturally occurring levels, or, in the case of mercury, occurring as a regional condition that would pose no increased human health or ecological risk. Based on the data and analyses presented in this memo, the subject material is environmentally suitable for its intended use as borrow for the levee setback project.

References

- Efroymson, R.A., M.E. Will, G.W. Suter II and A.C. Wooten, 1997a, Toxicological Benchmarks for Screening Contaminants of Potential Concern for Effects on Terrestrial Plants: 1997 Revision. ES/ER/TM-85/R3. Oak Ridge National Laboratory, Oak Ridge, TN.
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- United States Environmental Protection Agency (USEPA), 2007, Ecological Soil Screening Levels, viewed 19 December 2007, <<http://www.epa.gov/ecotox/ecossi/>>.

Attachments

Table 1 – Summary of Borrow Area Test Pit Samples

Table 2 – Statistical Analysis of Borrow Area Test Pit Samples

Figure 1 – Borrow Area Sample Location Plan

Attachment A – Analytical Testing Results

Table 1 - Summary of Borrow Area Test Pit Samples
Feather River Setback Levee
Marysville, California

Borrow Location		Ella Road		Northwestern								Eastern					
		Method	TP-ENV-ELLA-505 9/25/2007	TP-ENV-ELLA-509 9/25/2007	TP-ENV-515 11/6/2007	TP-ENV-516 11/6/2007	TP-ENV-517 11/6/2007	TP-ENV-NAUMES-317 11/2/2007	TP-ENV-NAUMES-338 11/2/2007	TP-ENV-NAUMES-391 11/2/2007	TP-ENV-NAUMES-425 11/2/2007	TP-ENV-NAUMES-499 11/2/2007	TP-ENV-518 11/5/2007	TP-ENV-519 11/6/2007	TP-ENV-520 11/5/2007	TP-ENV-521 11/5/2007	TP-ENV-522 11/5/2007
PCBs (mg/kg)	8081																
Aroclor 1016		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Aroclor 1221		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Aroclor 1232		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Aroclor 1242		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Aroclor 1248		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Aroclor 1254		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Aroclor 1260		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Pesticides (mg/kg)	8082																
Aldrin		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
Alpha-BHC		<0.004	<0.004	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
Beta-BHC		<0.0005	<0.0005	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	
Chlordane		<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
DDD, 4,4-		<0.0075	<0.0075	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	
DDE, 4,4-		<0.0075	<0.0075	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	
DDT, 4,4-		<0.0075	<0.0075	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	
DDT, 4,4-		<0.0075	<0.0075	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	
Delta-BHC		<0.005	<0.005	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	
Dieldrin		<0.005	0.0005	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	
Endosulfan I		<0.0075	<0.0075	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	
Endosulfan II		<0.0075	<0.0075	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	
Endosulfan sulfate		<0.0075	<0.0075	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	
Endrin		<0.0075	<0.0075	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	
Endrin aldehyde		<0.0075	<0.0075	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	
Gamma-BHC		<0.005	<0.005	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	
Heptachlor		<0.005	<0.005	<0.0125	<0.0125	<0.0125	<0.0125	<0.0125	<0.0125	<0.0125	<0.0125	<0.0125	<0.0125	<0.0125	<0.0125	<0.0125	
Heptachlor epoxide		<0.002	<0.002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
Methoxychlor		<0.0075	<0.0075	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	<0.0375	
Mirex		<0.005	<0.005	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	
Toxaphene		<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Metals (mg/kg)	6020																
Antimony		<0.5	3.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Arsenic		8.7	12	3.3	4.2	8.3	9.1	9.4	5.2	5.8	5.8	7.2	3.9	6.8	4.2	5.3	
Beryllium		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Cadmium		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<4.9	<0.5	<0.5	<0.5	<0.5	
Chromium		80	75	81	86	61	72	64	130	92	77	49	43	41	34	50	
Copper		37	41	33	44	34	40	37	40	44	43	48	32	32	27	44	
Iron		32000	36000	25000	27000	25000	24000	24000	30000	29000	30000	33000	24000	24000	22000	30000	
Manganese		650	460	360	460	360	440	410	540	830	610	460	310	310	400	480	
Mercury		<0.1	<0.1	<0.1	<0.1	0.41	<0.1	<0.25	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	
Nickel		66	54	91	91	52	77	60	100	87	42	45	48	37	54		
Selenium		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Silver		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Thallium		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Zinc		55	54	50	52	43	49	47	56	57	53	49	43	36	37	57	
Total Cyanide (mg/kg)	9010b																
Cyanide, Total		<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	

Table 2 - Statistical Analysis of Borrow Area Test Pit Samples
Feather River Setback Levee
Marysville, California

Analyte	Detection Frequency	Detected Concentration Distribution	EPC Calculation Method	EPC (mg/kg)	Published Background		Human Health Screening Value	Ecological Screening Value (mg/kg)				EPC > BKG?	EPC > SVs
					Regional (Shacklette, 1984)	95% Statewide (Hunter et al., 2005)		EPA Region 9 PRG Residential	Plants	Invertebrates	Birds	Mammals	
PCBs (mg/kg)													
Aroclor 1016	0.00%	NA	Average	0.005	NE	NE	NE	NE	NE	NE	NE	NA	NE
Aroclor 1221	0.00%	NA	Average	0.005	NE	NE	NE	NE	NE	NE	NE	NA	NE
Aroclor 1232	0.00%	NA	Average	0.005	NE	NE	NE	NE	NE	NE	NE	NA	NE
Aroclor 1242	0.00%	NA	Average	0.005	NE	NE	NE	NE	NE	NE	NE	NA	NE
Aroclor 1248	0.00%	NA	Average	0.005	NE	NE	NE	NE	NE	NE	NE	NA	NE
Aroclor 1254	0.00%	NA	Average	0.005	NE	NE	NE	NE	NE	NE	NE	NA	NE
Aroclor 1260	0.00%	NA	Average	0.005	NE	NE	NE	NE	NE	NE	NE	NA	NE
Total PCBs	0.00%	--	Sum	0.035	NE	NE	0.22	40	NE	NE	0.371	--	No
Pesticides (mg/kg)													
Aldrin	0.00%	NA	Average	0.00125	NE	NE	0.029	NE	NE	NE	NE	NA	NE
Alpha-bhc	0.00%	NA	Average	0.0025	NE	NE	NE	NE	NE	NE	NE	NA	NE
Beta-BHC	0.00%	NA	Average	0.0125	NE	NE	NE	NE	NE	NE	NE	NA	NE
Chlordane	0.00%	NA	Average	0.025	NE	NE	NE	NE	NE	NE	NE	NA	NE
DDD,4,4-	0.00%	NA	Average	0.01875	NE	NE	NE	NE	NE	NE	NE	NA	NE
DDE,4,4-	0.00%	NA	Average	0.01875	NE	NE	0.03	NE	NE	NE	NE	NA	NE
DDT,4,4-	0.00%	NA	Average	0.01875	NE	NE	NE	NE	NE	NE	NE	NA	NE
Delta-BHC	0.00%	NA	Average	0.0125	NE	NE	NE	NE	NE	NE	NE	NA	NE
Dieldrin	0.00%	NA	Average	0.00125	NE	NE	NE	NE	NE	NE	NE	NA	NE
Endosulfan I	0.00%	NA	Average	0.01875	NE	NE	NE	NE	NE	NE	NE	NA	NE
Endosulfan II	0.00%	NA	Average	0.01875	NE	NE	0.018	NE	NE	NE	NE	NA	NE
Endosulfan sulfate	0.00%	NA	Average	0.01875	NE	NE	NE	NE	NE	NE	NE	NA	NE
Endrin	0.00%	NA	Average	0.01875	NE	NE	NE	NE	NE	NE	NE	NA	NE
Endrin aldehyde	0.00%	NA	Average	0.01875	NE	NE	NE	NE	NE	NE	NE	NA	NE
Gamma-BHC	0.00%	NA	Average	0.0125	NE	NE	NE	NE	NE	NE	NE	NA	NE
Heptachlor	0.00%	NA	Average	0.00625	NE	NE	0.11	NE	NE	NE	NE	NA	NE
Heptachlor epoxide	0.00%	NA	Average	0.0025	NE	NE	0.053	NE	NE	NE	NE	NA	NE
Methoxychlor	0.00%	NA	Average	0.01875	NE	NE	0.3	NE	NE	NE	NE	NA	NE
Mirex	0.00%	NA	Average	0.0125	NE	NE	0.27	NE	NE	NE	NE	NA	NE
Toxaphene	0.00%	NA	Average	0.025	NE	NE	0.44	NE	NE	NE	NE	NA	NE
Metals (mg/Kg)													
Antimony	6.67%	NA	Maximum	3.1	<1	12.5	31	5	78	NE	0.27	No	Yes
Arsenic	100.00%	Normal	Students t UCL	7.03	<1-65	12.7	0.39	9.9	60	43	9.9	No	No
Beryllium	0.00%	NA	Average	0.25	<1-1.5	1.1	150	10	40	NE	21	No	No
Cadmium	6.67%	NA	Maximum	4.9	<150	2.3	39	4	20	0.77	0.36	Yes	Yes
Chromium	100.00%	Normal	Students t UCL	80.67	30-700	49.4	210	1	0.4	26	34	Yes	Yes
Copper	100.00%	Normal	Students t UCL	41.42	50-700	53.3	3100	70	50	28	49	No	Yes
Iron	100.00%	Normal	Students t UCL	28349.00	3-10%	36100	23000	NE	NE	NE	NE	No	No
Manganese	100.00%	Lognormal	95% Approx Gamma UCL	531.60	200-7000	823	1800	220	450	4300	4000	No	Yes
Mercury	6.67%		Maximum	0.41	0.051-5.1	0.5	23	0.3	0.1	0.00051	NE	No	Yes
Nickel	100.00%	Normal	Students t UCL	80	30-700	41.5	1600	30	200	210	130	Yes	Yes
Selenium	0.00%	NA	Average	0.25	NE	11	390	0.52	4.1	1.2	0.21	No	Yes
Silver	0.00%	NA	Average	0.25	NE	2.1	390	2	NE	4.2	14	No	No
Thallium	0.00%	NA	Average	0.25	NE	25	5.2	1	NE	NE	NE	No	No
Zinc	100.00%	Normal	Students t UCL	52	74-510	104	23000	50	120	8.5	79	No	Yes
Total Cyanide (mg/Kg)													
Cyanide, Total	0.00%	NA	Average	0.125	NE	0.7	1200	NE	NE	NE	NE	No	NE

Notes:

NA = Not Applicable. Analyte not detected in any sample.

NE = No criteria established.

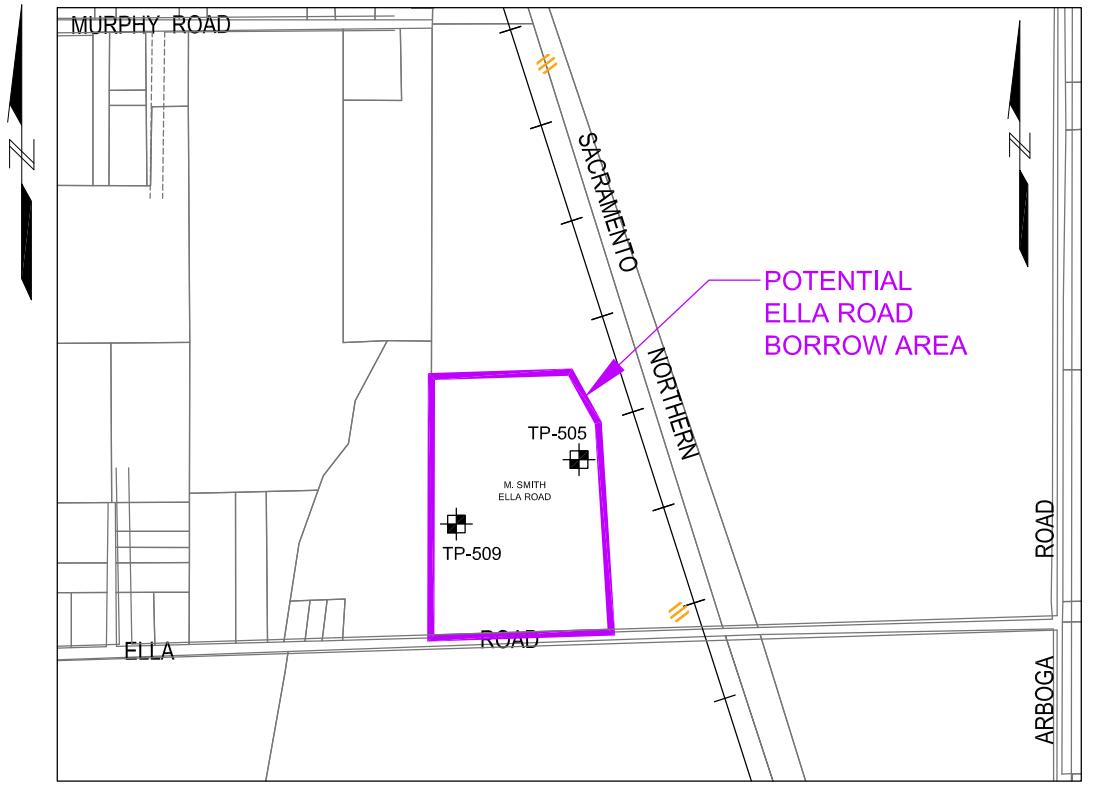
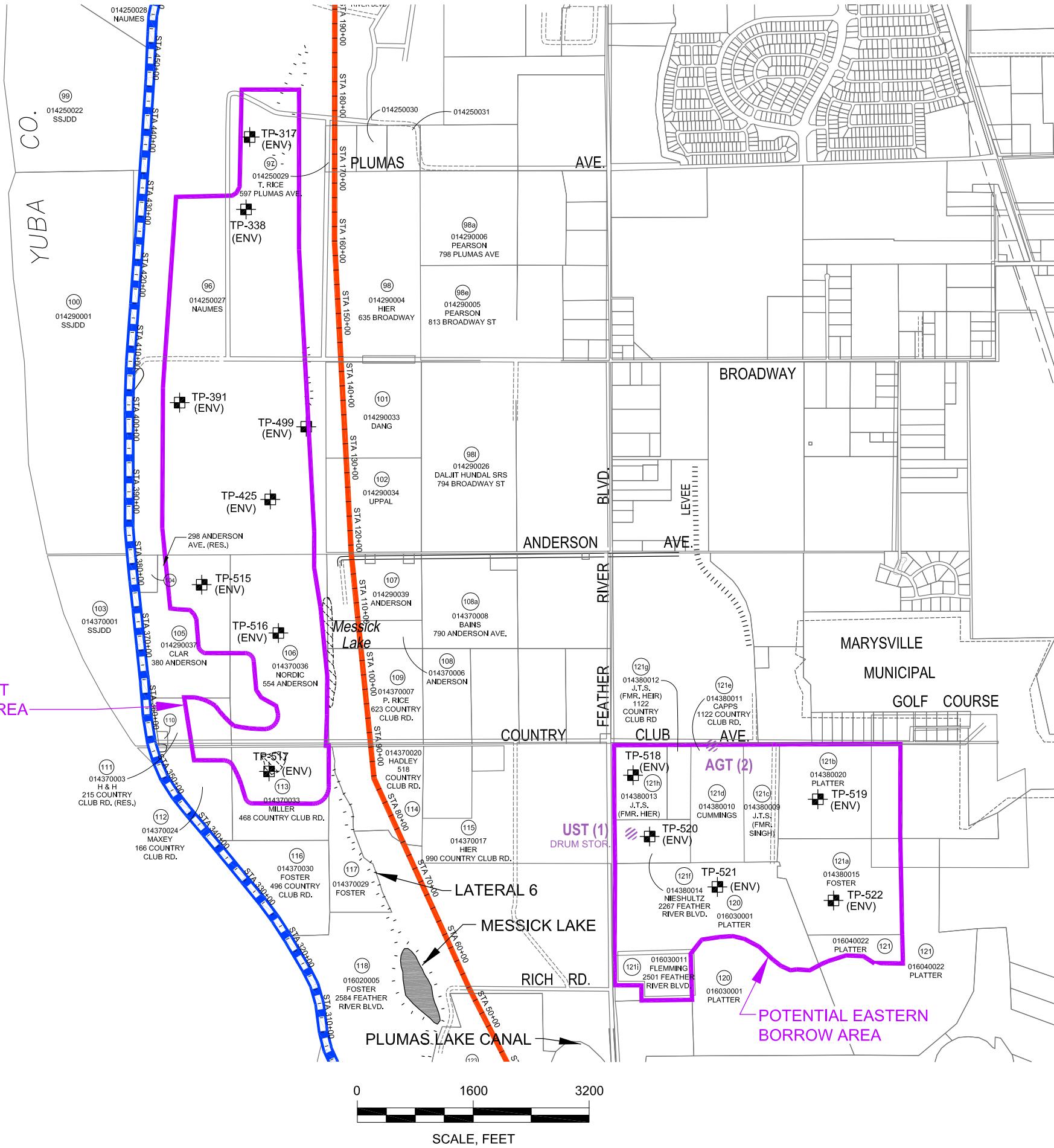
EPC = lower of maximum detected value and UCL95

If all nondetect, 1/2 RL used as the EPC

UCL95 not calculated unless detection frequency was greater than 85%

SUTTER CO.

FEATHER

POTENTIAL
NORTHWEST
BORROW AREA

LEGEND	
■ TP-515 (ENV)	SAMPLE LOCATION
■ EXISTING FEATHER RIVER LEFT LEVEE	
■ PROPOSED BORROW AREA	
■ PROPOSED SETBACK LEVEE	
■ PROPERTY PARCELS	
■ STORAGE TANKS (NUMBER OF TANKS)	
■ DRUM STORAGE	
○ STAINED SOIL	
AGT (2)	
DRUM STORAGE	
NOTES	
1. PROPOSED ENVIRONMENTAL TEST PITS RANDOMLY SELECTED BY USING A 250 BY 250 FT GRID.	
THREE RIVERS LEVEE IMPROVEMENT AUTHORITY	PHASE 4 FEATHER RIVER LEVEE REPAIR PROJECT
Government Center	Reclamation District No. 784
915 Eighth Street, Suite 115	Yuba County, California
Marysville, CA 95901-5273	JANUARY 2008
GEI Project 05011-5	BORROW AREA SAMPLE LOCATION
Bookman-Edmonston	FIGURE 1

ATTACHMENT A

ANALYTICAL DATA REPORTS



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

GEI Consultants
10860 Gold Center Dr. Ste. 350
Rancho Cordova, CA 95670

Attn: Andrew Adinolfi
Phone: (916) 631-4500
Fax:
Date Received : 09/26/07

Job#: 050115/TRLIA

Metals by ICPMS
EPA Method SW6020/SW6020A

	Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID :	TP-ENV-ELLA-509				
Lab ID :	GEI07092653-01A	Beryllium (Be)	ND	1.0 mg/Kg	09/25/07 10/03/07
		Chromium (Cr)	75	1.0 mg/Kg	09/25/07 10/03/07
		Manganese (Mn)	460	1.0 mg/Kg	09/25/07 10/03/07
		Iron (Fe)	36,000	500 mg/Kg	09/25/07 10/03/07
		Nickel (Ni)	54	2.0 mg/Kg	09/25/07 10/03/07
		Copper (Cu)	41	2.0 mg/Kg	09/25/07 10/03/07
		Zinc (Zn)	54	20 mg/Kg	09/25/07 10/03/07
		Arsenic (As)	12	1.0 mg/Kg	09/25/07 10/03/07
		Selenium (Se)	ND	1.0 mg/Kg	09/25/07 10/03/07
		Silver (Ag)	ND	1.0 mg/Kg	09/25/07 10/03/07
		Cadmium (Cd)	ND	1.0 mg/Kg	09/25/07 10/03/07
		Antimony (Sb)	3.1	1.0 mg/Kg	09/25/07 10/03/07
		Mercury (Hg)	ND	0.20 mg/Kg	09/25/07 10/03/07
		Thallium (Tl)	ND	1.0 mg/Kg	09/25/07 10/03/07
Client ID :	TP-ENV-ELLA-505				
Lab ID :	GEI07092653-02A	Beryllium (Be)	ND	1.0 mg/Kg	09/25/07 10/03/07
		Chromium (Cr)	80	1.0 mg/Kg	09/25/07 10/03/07
		Manganese (Mn)	650	1.0 mg/Kg	09/25/07 10/03/07
		Iron (Fe)	32,000	500 mg/Kg	09/25/07 10/03/07
		Nickel (Ni)	66	2.0 mg/Kg	09/25/07 10/03/07
		Copper (Cu)	37	2.0 mg/Kg	09/25/07 10/03/07
		Zinc (Zn)	55	20 mg/Kg	09/25/07 10/03/07
		Arsenic (As)	8.7	1.0 mg/Kg	09/25/07 10/03/07
		Selenium (Se)	ND	1.0 mg/Kg	09/25/07 10/03/07
		Silver (Ag)	ND	1.0 mg/Kg	09/25/07 10/03/07
		Cadmium (Cd)	ND	1.0 mg/Kg	09/25/07 10/03/07
		Antimony (Sb)	ND	1.0 mg/Kg	09/25/07 10/03/07
		Mercury (Hg)	ND	0.20 mg/Kg	09/25/07 10/03/07
		Thallium (Tl)	ND	1.0 mg/Kg	09/25/07 10/03/07

This replaces the report originally signed 10/10/07, due to a change in the analyte list, per client request.

ND = Not Detected

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.

12/12/07

Report Date



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:
12-Dec-07

QC Summary Report

Work Order:
07092653

Method Blank

File ID: 100207A.B\004_ICB.

Sample ID: MB-18442

Analyte	Type	MBLK	Test Code: EPA Method SW6020								
	Units : mg/Kg		Batch ID: 18442	Analysis Date: 10/03/2007 12:19							
	Result	PQL	Run ID: ICP/MS_071003B	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	ND	1									
Chromium (Cr)	ND	1									
Manganese (Mn)	ND	1									
Iron (Fe)	ND	500									
Nickel (Ni)	ND	2									
Copper (Cu)	ND	2									
Zinc (Zn)	ND	20									
Arsenic (As)	ND	1									
Selenium (Se)	ND	1									
Silver (Ag)	ND	1									
Cadmium (Cd)	ND	1									
Antimony (Sb)	ND	1									
Mercury (Hg)	ND	0.2									
Thallium (Tl)	ND	1									

Laboratory Control Spike

File ID: 100207A.B\005_LCS.

Sample ID: LCS-18442

Analyte	Type	LCS	Test Code: EPA Method SW6020								
	Units : mg/Kg		Batch ID: 18442	Analysis Date: 10/03/2007 12:24							
	Result	PQL	Run ID: ICP/MS_071003B	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	31.6	1	25	127	77	124					L51
Chromium (Cr)	27.7	1	25	111	75	120					
Manganese (Mn)	256	1	250	102	79	121					
Iron (Fe)	5280	500	5000	106	80	120					
Nickel (Ni)	27.3	2	25	109	80	124					
Copper (Cu)	25	2	25	99.8	80	125					
Zinc (Zn)	27.9	20	25	111	73	135					
Arsenic (As)	26.8	1	25	107	80	120					
Selenium (Se)	26.8	1	25	107	80	120					
Silver (Ag)	25.8	1	25	103	62	132					
Cadmium (Cd)	27.6	1	25	110	80	120					
Antimony (Sb)	15.4	1	25	62	53	124					
Mercury (Hg)	0.553	0.2	0.5	111	68	140					
Thallium (Tl)	27.3	1	25	109	73	120					

Sample Matrix Spike

File ID: 100207A.B\005_MSL.D\

Sample ID: 07092653-01AMS

Analyte	Type	MS	Test Code: EPA Method SW6020								
	Units : mg/Kg		Batch ID: 18442	Analysis Date: 10/03/2007 12:39							
	Result	PQL	Run ID: ICP/MS_071003B	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	30.9	1	25	0	123	75	132				
Chromium (Cr)	110	1	25	75.31	137	50	150				
Manganese (Mn)	818	1	250	463.2	142	50	146				
Iron (Fe)	43500	500	5000	35830	152	50	150				M3
Nickel (Ni)	80.7	2	25	53.61	108	50	149				
Copper (Cu)	66	2	25	41.04	99.8	54	143				
Zinc (Zn)	77.7	20	25	53.95	95	50	147				
Arsenic (As)	35.8	1	25	11.99	95	60	130				
Selenium (Se)	24.9	1	25	0	99.7	69	130				
Silver (Ag)	25.3	1	25	0	101	62	132				
Cadmium (Cd)	26.5	1	25	0	106	70	130				
Antimony (Sb)	18.6	1	25	3.148	62	50	130				
Mercury (Hg)	0.545	0.2	0.5	0	109	65	150				
Thallium (Tl)	26.6	1	25	0	106	70	130				



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:
12-Dec-07

QC Summary Report

Work Order:
07092653

Sample Matrix Spike Duplicate

File ID: 100207A.B1001MSD.D1

Sample ID: 07092653-01AMSD

Type MSD

Test Code: EPA Method SW6020

Batch ID: 18442

Analysis Date: 10/03/2007 12:57

Analyte	Result	Units : mg/Kg	Run ID: ICP/MS_071003B			LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
			PQL	SpkVal	SpkRefVal					
Beryllium (Be)	33.7	1	25	0	135	75	132	30.85	8.8(20)	M1
Chromium (Cr)	123	1	25	75.31	192	50	150	109.6	11.7(20)	M1
Manganese (Mn)	1300	1	250	463.2	334	50	146	818	45.4(20)	M1 R58
Iron (Fe)	47400	500	5000	35830	231	50	150	43450	8.6(20)	M3
Nickel (Ni)	99.9	2	25	53.61	185	50	149	80.7	21.2(20)	M1 R58
Copper (Cu)	78.8	2	25	41.04	151	54	143	65.98	17.7(20)	M1
Zinc (Zn)	84.9	20	25	53.95	124	50	147	77.65	8.9(20)	
Arsenic (As)	38.5	1	25	11.99	106	60	130	35.84	7.1(20)	
Selenium (Se)	27.2	1	25	0	109	69	130	24.92	8.7(20)	
Silver (Ag)	27.3	1	25	0	109	62	132	25.34	7.4(20)	
Cadmium (Cd)	28.7	1	25	0	115	70	130	26.47	8.2(20)	
Antimony (Sb)	19	1	25	3.148	63	50	130	18.59	2.0(20)	
Mercury (Hg)	0.58	0.2	0.5	0	116	65	150	0.5446	6.3(20)	
Thallium (Tl)	28.7	1	25	0	115	70	130	26.55	7.7(20)	

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

L51 = Analyte recovery was above acceptance limits for the LCS, but was acceptable in the MS/MSD.

M1 = Matrix spike recovery was high, the method control sample recovery was acceptable.

M3 = The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to the spike level. The method control sample recovery was acceptable.

R58 = MS/MSD RPD exceeded the laboratory control limit.

CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

December 10, 2007

CLS Work Order #: CQI0859
COC #:

Reyna Vallejo
Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks, NV 89431

Project Name: GEI07092653

Enclosed are the results of analyses for samples received by the laboratory on 09/26/07 16:10. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,



James Liang, Ph.D.
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES

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12/10/07 12:15

Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks, NV 89431

Project: GEI07092653
Project Number: GEI07092653
Project Manager: Reyna Vallejo

CLS Work Order #: CQI0859
COC #:

Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
GEI07092653-01A (TP-ENV-ELLA-509) (CQI0859-01) Soil Sampled: 09/25/07 09:00 Received: 09/26/07 16:10									
Cyanide (total)	ND	0.50	mg/kg	1	CQ08181	10/02/07	10/02/07	EPA 9010B	
GEI07092653-02A (TP-ENV-ELLA-505) (CQI0859-02) Soil Sampled: 09/25/07 15:45 Received: 09/26/07 16:10									
Cyanide (total)	ND	0.50	mg/kg	1	CQ08181	10/02/07	10/02/07	EPA 9010B	

CALIFORNIA LABORATORY SERVICES

Page 3 of 10

12/10/07 12:15

Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks, NV 89431

Project: GEI07092653
Project Number: GEI07092653
Project Manager: Reyna Vallejo

CLS Work Order #: CQI0859
COC #:

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
GEI07092653-01A (TP-ENV-ELLA-509) (CQI0859-01) Soil Sampled: 09/25/07 09:00 Received: 09/26/07 16:10									
Aldrin	ND	1.0	µg/kg	1	CQ08077	09/27/07	09/27/07	EPA 8081A	"
alpha-BHC	ND	8.0	"	"	"	"	"	"	"
beta-BHC	ND	10	"	"	"	"	"	"	"
delta-BHC	ND	10	"	"	"	"	"	"	"
gamma-BHC (Lindane)	ND	10	"	"	"	"	"	"	"
Chlordane	ND	20	"	"	"	"	"	"	"
4,4'-DDD	ND	15	"	"	"	"	"	"	"
4,4'-DDE	ND	15	"	"	"	"	"	"	"
4,4'-DDT	ND	15	"	"	"	"	"	"	"
Dieldrin	ND	1.0	"	"	"	"	"	"	"
Endosulfan I	ND	15	"	"	"	"	"	"	"
Endosulfan II	ND	15	"	"	"	"	"	"	"
Endosulfan sulfate	ND	15	"	"	"	"	"	"	"
Endrin	ND	15	"	"	"	"	"	"	"
Endrin aldehyde	ND	15	"	"	"	"	"	"	"
Heptachlor	ND	10	"	"	"	"	"	"	"
Heptachlor epoxide	ND	4.0	"	"	"	"	"	"	"
Methoxychlor	ND	15	"	"	"	"	"	"	"
Mirex	ND	10	"	"	"	"	"	"	"
Toxaphene	ND	20	"	"	"	"	"	"	"
<i>Surrogate: Tetrachloro-meta-xylene</i>		107 %	46-139	"	"	"	"	"	"
<i>Surrogate: Decachlorobiphenyl</i>		117 %	52-141	"	"	"	"	"	"
GEI07092653-02A (TP-ENV-ELLA-505) (CQI0859-02) Soil Sampled: 09/25/07 15:45 Received: 09/26/07 16:10									
Aldrin	ND	1.0	µg/kg	1	CQ08077	09/27/07	09/27/07	EPA 8081A	"
alpha-BHC	ND	8.0	"	"	"	"	"	"	"
beta-BHC	ND	10	"	"	"	"	"	"	"
delta-BHC	ND	10	"	"	"	"	"	"	"
gamma-BHC (Lindane)	ND	10	"	"	"	"	"	"	"
Chlordane	ND	20	"	"	"	"	"	"	"
4,4'-DDD	ND	15	"	"	"	"	"	"	"
4,4'-DDE	ND	15	"	"	"	"	"	"	"
4,4'-DDT	ND	15	"	"	"	"	"	"	"
Dieldrin	ND	1.0	"	"	"	"	"	"	"

CALIFORNIA LABORATORY SERVICES

Page 4 of 10

12/10/07 12:15

Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks, NV 89431

Project: GEI07092653
Project Number: GEI07092653
Project Manager: Reyna Vallejo

CLS Work Order #: CQI0859
COC #:

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
GEI07092653-02A (TP-ENV-ELLA-505) (CQI0859-02) Soil Sampled: 09/25/07 15:45 Received: 09/26/07 16:10									
Endosulfan I	ND	15	µg/kg	1	CQ08077	09/27/07	09/27/07	EPA 8081A	"
Endosulfan II	ND	15	"	"	"	"	"	"	"
Endosulfan sulfate	ND	15	"	"	"	"	"	"	"
Endrin	ND	15	"	"	"	"	"	"	"
Endrin aldehyde	ND	15	"	"	"	"	"	"	"
Heptachlor	ND	10	"	"	"	"	"	"	"
Heptachlor epoxide	ND	4.0	"	"	"	"	"	"	"
Methoxychlor	ND	15	"	"	"	"	"	"	"
Mirex	ND	10	"	"	"	"	"	"	"
Toxaphene	ND	20	"	"	"	"	"	"	"
<i>Surrogate: Tetrachloro-meta-xylene</i>		102 %	46-139		"	"	"	"	"
<i>Surrogate: Decachlorobiphenyl</i>		93.5 %	52-141		"	"	"	"	"

CALIFORNIA LABORATORY SERVICES

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12/10/07 12:15

Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks, NV 89431

Project: GEI07092653
Project Number: GEI07092653
Project Manager: Reyna Vallejo

CLS Work Order #: CQI0859
COC #:

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
GEI07092653-01A (TP-ENV-ELLA-509) (CQI0859-01) Soil Sampled: 09/25/07 09:00 Received: 09/26/07 16:10									
Aroclor 1016	ND	20	µg/kg	1	CQ08078	09/27/07	09/28/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
<i>Surrogate: Decachlorobiphenyl 143 % 50-150 " " "</i>									
GEI07092653-02A (TP-ENV-ELLA-505) (CQI0859-02) Soil Sampled: 09/25/07 15:45 Received: 09/26/07 16:10									
Aroclor 1016	ND	20	µg/kg	1	CQ08078	09/27/07	09/28/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
<i>Surrogate: Decachlorobiphenyl 139 % 50-150 " " "</i>									

CALIFORNIA LABORATORY SERVICES

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Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks, NV 89431

Project: GEI07092653
Project Number: GEI07092653
Project Manager: Reyna Vallejo

CLS Work Order #: CQI0859
COC #:

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
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Batch CQ08181 - General Preparation

Blank (CQ08181-BLK1)		Prepared & Analyzed: 10/02/07								
Cyanide (total)	ND	0.50	mg/kg							
LCS (CQ08181-BS1)		Prepared & Analyzed: 10/02/07								
Cyanide (total)	5.06	0.50	mg/kg	5.00		101	75-125			
LCS Dup (CQ08181-BSD1)		Prepared & Analyzed: 10/02/07								
Cyanide (total)	4.92	0.50	mg/kg	5.00		98.4	75-125	2.90	25	

CALIFORNIA LABORATORY SERVICES

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12/10/07 12:15

Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks, NV 89431

Project: GEI07092653
Project Number: GEI07092653
Project Manager: Reyna Vallejo

CLS Work Order #: CQI0859
COC #:

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
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Batch CQ08077 - LUFT-DHS GCNV

Blank (CQ08077-BLK1)

Prepared & Analyzed: 09/27/07

Aldrin	ND	1.0	µg/kg							
alpha-BHC	ND	8.0	"							
beta-BHC	ND	10	"							
delta-BHC	ND	10	"							
gamma-BHC (Lindane)	ND	10	"							
Chlordane	ND	20	"							
4,4'-DDD	ND	15	"							
4,4'-DDE	ND	15	"							
4,4'-DDT	ND	15	"							
Dieldrin	ND	1.0	"							
Endosulfan I	ND	15	"							
Endosulfan II	ND	15	"							
Endosulfan sulfate	ND	15	"							
Endrin	ND	15	"							
Endrin aldehyde	ND	15	"							
Heptachlor	ND	10	"							
Heptachlor epoxide	ND	4.0	"							
Methoxychlor	ND	15	"							
Mirex	ND	10	"							
Toxaphene	ND	20	"							
<i>Surrogate: Tetrachloro-meta-xylene</i>	7.85		"	8.33		94.2	46-139			
<i>Surrogate: Decachlorobiphenyl</i>	7.90		"	8.33		94.8	52-141			

LCS (CQ08077-BS1)

Prepared & Analyzed: 09/27/07

Aldrin	18.5	1.0	µg/kg	16.7	111	47-132
gamma-BHC (Lindane)	18.3	10	"	16.7	110	56-133
4,4'-DDT	13.0	15	"	16.7	77.9	46-137
Dieldrin	15.7	1.0	"	16.7	94.1	44-143
Endrin	14.5	15	"	16.7	87.3	30-147
Heptachlor	16.9	10	"	16.7	101	33-148
<i>Surrogate: Tetrachloro-meta-xylene</i>	9.83		"	8.33	118	46-139

CALIFORNIA LABORATORY SERVICES

Page 8 of 10

12/10/07 12:15

Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks, NV 89431

Project: GEI07092653
Project Number: GEI07092653
Project Manager: Reyna Vallejo

CLS Work Order #: CQI0859
COC #:

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
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Batch CQ08077 - LUFT-DHS GCNV

LCS (CQ08077-BS1)

Surrogate: Decachlorobiphenyl 9.47 µg/kg 8.33 114 52-141

Prepared & Analyzed: 09/27/07

LCS Dup (CQ08077-BSD1)

Aldrin	14.7	1.0	µg/kg	16.7	88.5	47-132	22.6	30
gamma-BHC (Lindane)	14.3	10	"	16.7	85.6	56-133	24.7	30
4,4'-DDT	11.1	15	"	16.7	66.7	46-137	15.6	30
Dieldrin	13.1	1.0	"	16.7	78.8	44-143	17.7	30
Endrin	12.3	15	"	16.7	74.0	30-147	16.5	30
Heptachlor	13.6	10	"	16.7	81.6	33-148	21.7	30

Surrogate: Tetrachloro-meta-xylene 7.73 "

Surrogate: Decachlorobiphenyl 8.40 "

Prepared & Analyzed: 09/27/07

Matrix Spike (CQ08077-MS1)

Aldrin	14.6	1.0	µg/kg	16.7	ND	87.3	47-138
gamma-BHC (Lindane)	14.6	10	"	16.7	ND	87.5	38-144
4,4'-DDT	12.3	15	"	16.7	ND	73.8	41-157
Dieldrin	13.5	1.0	"	16.7	ND	80.9	46-155
Endrin	13.2	15	"	16.7	ND	79.4	34-149
Heptachlor	13.7	10	"	16.7	ND	82.3	36-155

Surrogate: Tetrachloro-meta-xylene 18.6 "

Surrogate: Decachlorobiphenyl 20.5 "

Source: CQI0859-01 Prepared & Analyzed: 09/27/07

Matrix Spike Dup (CQ08077-MSD1)

Aldrin	13.2	1.0	µg/kg	16.7	ND	79.3	47-138	9.67	35
gamma-BHC (Lindane)	12.7	10	"	16.7	ND	76.0	38-144	14.0	35
4,4'-DDT	12.6	15	"	16.7	ND	75.4	41-157	2.22	35
Dieldrin	12.9	1.0	"	16.7	ND	77.5	46-155	4.25	35
Endrin	12.9	15	"	16.7	ND	77.6	34-149	2.29	35
Heptachlor	13.3	10	"	16.7	ND	80.1	36-155	2.74	35

Surrogate: Tetrachloro-meta-xylene 15.7 "

Surrogate: Decachlorobiphenyl 19.9 "

Source: CQI0859-01 Prepared & Analyzed: 09/27/07

CALIFORNIA LABORATORY SERVICES

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12/10/07 12:15

Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks, NV 89431

Project: GEI07092653
Project Number: GEI07092653
Project Manager: Reyna Vallejo

CLS Work Order #: CQI0859
COC #:

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
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Batch CQ08078 - LUFT-DHS GCNV

Blank (CQ08078-BLK1)

Prepared: 09/27/07 Analyzed: 09/28/07

Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							

Surrogate: Decachlorobiphenyl	8.63	"	8.33		104	50-150				
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LCS (CQ08078-BS1)

Prepared: 09/27/07 Analyzed: 09/28/07

Aroclor 1260	77.7	20	µg/kg	83.3	93.3	29-131				
Surrogate: Decachlorobiphenyl	7.90	"	8.33		94.8	50-150				

LCS Dup (CQ08078-BSD1)

Prepared: 09/27/07 Analyzed: 09/28/07

Aroclor 1260	75.6	20	µg/kg	83.3	90.7	29-131	2.79	30		
Surrogate: Decachlorobiphenyl	7.73	"	8.33		92.8	50-150				

Matrix Spike (CQ08078-MS1)

Source: CQI0859-02 Prepared: 09/27/07 Analyzed: 09/28/07

Aroclor 1260	63.1	20	µg/kg	83.3	ND	75.8	29-131			
Surrogate: Decachlorobiphenyl	6.33	"	8.33		76.0	50-150				

Matrix Spike Dup (CQ08078-MSD1)

Source: CQI0859-02 Prepared: 09/27/07 Analyzed: 09/28/07

Aroclor 1260	64.0	20	µg/kg	83.3	ND	76.8	29-131	1.43	30	
Surrogate: Decachlorobiphenyl	6.43	"	8.33		77.2	50-150				

CALIFORNIA LABORATORY SERVICES

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12/10/07 12:15

Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks, NV 89431

Project: GEI07092653
Project Number: GEI07092653
Project Manager: Reyna Vallejo

CLS Work Order #: CQI0859
COC #:

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA AMENDED EDITION #2

Alpha Analytical, Inc.

255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

Report Attention Phone Number EMail Address

Andrew Adinolfi (916) 631-4500 x aadinolfi@geiconsultants.com

WorkOrder : GEIC07092653

Report Due By : 5:00 PM On : 11-Oct-07

Comments:

GEI Consultants
10860 Gold Center Dr. Ste. 350
Rancho Cordova, CA 95670

PO :

Client's COC # : 20777

Job : 050115/TRLIA

QC Level : 1 = Final Rpt Only

Alpha Sample ID	Client Sample ID	Collection Matrix	No. of Bottles	Requested Tests						Sample Remarks
				Date	Alpha Sub	TAT	8081_S	8082_S	CYANIDE_T	
GEI07092653-01A	TP-ENV-ELLA-509	SO	1	09/25/07 09:00	1	10	PEST	PCB	Cyanide	8081, 8082 and Total Cyanide subbed to CLS.
GEI07092653-02A	TP-ENV-ELLA-505	SO	1	09/25/07 15:45	1	10	PEST	PCB	Cyanide	8081, 8082 and Total Cyanide subbed to CLS.

Comments:

Samples prelogged in order for Sac office to sub 8081, 8082 and Total Cyanide to CLS. Security seals intact. Frozen ice. Amended 10/9/07 to add EDD, per Justin. TD. Amended 12/11/07 @ 14:40 to add Hg to Metals list, per Andrew. LE :

Print Name	Signature	Date/Time
<i>Patricia Edroso</i>	<i>Patricia Edroso</i>	<i>12/11/07 14:40</i>
Company	Alpha Analytical, Inc.	

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.

Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voia S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

CHAIN-OF-CUSTODY RECORD

Billing Information :

AMENDED CA

Page: 1 of 1

Alpha Analytical, Inc.

255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778

TEL: (775) 355-1044 FAX: (775) 355-0406

Report Attention Phone Number **Email Address**

Andrew Adinolfi (916) 631-4500 x aadinolfi@geiconsultants.com

WorkOrder : GEIC07092653

Report Due By : 5:00 PM On : 11-Oct-07

EDD Required : Yes

Sampled by : Client

Cooler Temp Samples Received Date Printed

4 °C 26-Sep-07 09-Oct-07

Comments: Samples prelogged in order for Sac office to sub 8081, 8082 and Total Cyanide to CLS. Security seals intact. Frozen ice. Amended 10/9/07 to add EDD, per Justin. TD.:

Logged in by: 

Print Name Company Date/Time

John J. DeBlassie Alpha Analytical, Inc. 10/9/07 1420

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.
 The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.
 Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-VoA S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

CHAIN-OF-CUSTODY RECORD

CA

Alpha Analytical, Inc.

255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778

TEL: (775) 355-1044 FAX: (775) 355-0406

Client:GEI Consultants
10860 Gold Center Dr. Ste. 350

Rancho Cordova, CA 95670

Report Attention : Andrew Adinolfi

CC Report :

QC Level : 1 = Final Rpt Only

WorkOrder : GEIC07092653**Report Due By : 5:00 PM On : 11-Oct-07****Report Due By : 5:00 PM On : 11-Oct-07**

Andrew Adinolfi

TEL : (916) 631-4500 X
FAX :
EMail : aadinolfi@geiconsultants.com

Job : 050115/TRIA

PO :
QC Report :

Client's COC # : 20777

QC Level : 1 = Final Rpt Only

EDD Required : No

Sampled by : Client

Cooler Temp : 4 °C

Samples Received : 26-Sep-07

Date Printed : 27-Sep-07

Alpha Sample ID	Client Sample ID	Collection Matrix	Date	No. of Bottles			PWS #	Requested Tests						Sample Remarks	
				ORG	SUB	TAT		8081_S	8082_S	CYANIDE_T	METALS_S	PCB	Cyanide	Spec. list	
GEI07092653-01A	TP-ENV-ELLA-509	SO	09/25/07 09:00	1	1	10		PEST	PCB						8081, 8082 and Total Cyanide subbed to CLS.
GEI07092653-02A	TP-ENV-ELLA-505	SO	09/25/07 15:45	1	1	10		PEST	PCB						8081, 8082 and Total Cyanide subbed to CLS.

Comments: Samples prelogged in order for Sac office to sub 8081, 8082 and Total Cyanide to CLS. Security seals intact. Frozen ice. . .

Logged in by:	John DeMason	Print Name	Company	Date/Time
			Alpha Analytical, Inc.	6/27/07 1011
Signature:				

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.
The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.
Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-VoA S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

GEI Consultants
10860 Gold Center Dr. Ste. 350
Rancho Cordova, CA 95670

Attn: Andrew Adinolfi
Phone: (916) 631-4500
Fax:
Date Received : 11/02/07

Job#: 050115/TRLIA

Metals by ICPMS
EPA Method SW6020/SW6020A

Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID : TP-ENV-NAUMES-317				
Lab ID : GEI07110210-01A	Beryllium (Be)	ND	1.0 mg/Kg	11/02/07 11/09/07
	Chromium (Cr)	72	1.0 mg/Kg	11/02/07 11/09/07
	Manganese (Mn)	440	1.0 mg/Kg	11/02/07 11/09/07
	Iron (Fe)	24,000	500 mg/Kg	11/02/07 11/09/07
	Nickel (Ni)	77	2.0 mg/Kg	11/02/07 11/09/07
	Copper (Cu)	40	2.0 mg/Kg	11/02/07 11/09/07
	Zinc (Zn)	49	20 mg/Kg	11/02/07 11/09/07
	Arsenic (As)	9.1	1.0 mg/Kg	11/02/07 11/09/07
	Selenium (Se)	ND	1.0 mg/Kg	11/02/07 11/09/07
	Silver (Ag)	ND	1.0 mg/Kg	11/02/07 11/09/07
	Cadmium (Cd)	ND	1.0 mg/Kg	11/02/07 11/09/07
	Antimony (Sb)	ND	1.0 mg/Kg	11/02/07 11/09/07
	Mercury (Hg)	ND	0.20 mg/Kg	11/02/07 11/09/07
	Thallium (Tl)	ND	1.0 mg/Kg	11/02/07 11/09/07
Client ID : TP-ENV-NAUMES-338				
Lab ID : GEI07110210-02A	Beryllium (Be)	ND	1.0 mg/Kg	11/02/07 11/09/07
	Chromium (Cr)	64	1.0 mg/Kg	11/02/07 11/09/07
	Manganese (Mn)	410	1.0 mg/Kg	11/02/07 11/09/07
	Iron (Fe)	24,000	500 mg/Kg	11/02/07 11/09/07
	Nickel (Ni)	60	2.0 mg/Kg	11/02/07 11/09/07
	Copper (Cu)	37	2.0 mg/Kg	11/02/07 11/09/07
	Zinc (Zn)	47	20 mg/Kg	11/02/07 11/09/07
	Arsenic (As)	9.4	1.0 mg/Kg	11/02/07 11/09/07
	Selenium (Se)	ND	1.0 mg/Kg	11/02/07 11/09/07
	Silver (Ag)	ND	1.0 mg/Kg	11/02/07 11/09/07
	Cadmium (Cd)	ND	1.0 mg/Kg	11/02/07 11/09/07
	Antimony (Sb)	ND	1.0 mg/Kg	11/02/07 11/09/07
	Mercury (Hg)	0.25	0.20 mg/Kg	11/02/07 11/09/07
	Thallium (Tl)	ND	1.0 mg/Kg	11/02/07 11/09/07



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Client ID : **TP-ENV-NAUMES-391**

Lab ID :	GEI07110210-03A	Beryllium (Be)	ND	1.0 mg/Kg	11/02/07	11/09/07
		Chromium (Cr)	130	1.0 mg/Kg	11/02/07	11/09/07
		Manganese (Mn)	540	1.0 mg/Kg	11/02/07	11/09/07
		Iron (Fe)	30,000	500 mg/Kg	11/02/07	11/09/07
		Nickel (Ni)	100	2.0 mg/Kg	11/02/07	11/09/07
		Copper (Cu)	40	2.0 mg/Kg	11/02/07	11/09/07
		Zinc (Zn)	56	20 mg/Kg	11/02/07	11/09/07
		Arsenic (As)	5.2	1.0 mg/Kg	11/02/07	11/09/07
		Selenium (Se)	ND	1.0 mg/Kg	11/02/07	11/09/07
		Silver (Ag)	ND	1.0 mg/Kg	11/02/07	11/09/07
		Cadmium (Cd)	ND	1.0 mg/Kg	11/02/07	11/09/07
		Antimony (Sb)	ND	1.0 mg/Kg	11/02/07	11/09/07
		Mercury (Hg)	ND	0.20 mg/Kg	11/02/07	11/09/07
		Thallium (Tl)	ND	1.0 mg/Kg	11/02/07	11/09/07

Client ID : **TP-ENV-NAUMES-499**

Lab ID :	GEI07110210-04A	Beryllium (Be)	ND	1.0 mg/Kg	11/02/07	11/09/07
		Chromium (Cr)	77	1.0 mg/Kg	11/02/07	11/09/07
		Manganese (Mn)	610	1.0 mg/Kg	11/02/07	11/09/07
		Iron (Fe)	30,000	500 mg/Kg	11/02/07	11/09/07
		Nickel (Ni)	87	2.0 mg/Kg	11/02/07	11/09/07
		Copper (Cu)	43	2.0 mg/Kg	11/02/07	11/09/07
		Zinc (Zn)	53	20 mg/Kg	11/02/07	11/09/07
		Arsenic (As)	5.8	1.0 mg/Kg	11/02/07	11/09/07
		Selenium (Se)	ND	1.0 mg/Kg	11/02/07	11/09/07
		Silver (Ag)	ND	1.0 mg/Kg	11/02/07	11/09/07
		Cadmium (Cd)	ND	1.0 mg/Kg	11/02/07	11/09/07
		Antimony (Sb)	ND	1.0 mg/Kg	11/02/07	11/09/07
		Mercury (Hg)	ND	0.20 mg/Kg	11/02/07	11/09/07
		Thallium (Tl)	ND	1.0 mg/Kg	11/02/07	11/09/07

Client ID : **TP-ENV-NAUMES-425**

Lab ID :	GEI07110210-05A	Beryllium (Be)	ND	1.0 mg/Kg	11/02/07	11/09/07
		Chromium (Cr)	92	1.0 mg/Kg	11/02/07	11/09/07
		Manganese (Mn)	830	1.0 mg/Kg	11/02/07	11/09/07
		Iron (Fe)	29,000	500 mg/Kg	11/02/07	11/09/07
		Nickel (Ni)	100	2.0 mg/Kg	11/02/07	11/09/07
		Copper (Cu)	44	2.0 mg/Kg	11/02/07	11/09/07
		Zinc (Zn)	57	20 mg/Kg	11/02/07	11/09/07
		Arsenic (As)	5.8	1.0 mg/Kg	11/02/07	11/09/07
		Selenium (Se)	ND	1.0 mg/Kg	11/02/07	11/09/07
		Silver (Ag)	ND	1.0 mg/Kg	11/02/07	11/09/07
		Cadmium (Cd)	ND	1.0 mg/Kg	11/02/07	11/09/07
		Antimony (Sb)	ND	1.0 mg/Kg	11/02/07	11/09/07
		Mercury (Hg)	ND	0.20 mg/Kg	11/02/07	11/09/07
		Thallium (Tl)	ND	1.0 mg/Kg	11/02/07	11/09/07

This replaces the report originally signed 11/16/07, due to a change in the analyte list, per client request.

Sample results were calculated on a wet weight basis.

ND = Not Detected

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.

12/12/07

Report Date



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:
12-Dec-07

QC Summary Report

Work Order:
07110210

Method Blank

File ID: 110807.B\A028_ICB.D

Sample ID: MB-18687

Analyte	Type	MBLK	Test Code: EPA Method SW6020					Analysis Date: 11/08/2007 22:29
	Units : mg/Kg		Batch ID: 18687	Analysis Date: 11/08/2007 22:29				
	Result	PQL	Run ID: ICP/MS_071108A	Prep Date:	11/08/2007	SpkVal	SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit) Qual	
Beryllium (Be)	ND	1						
Chromium (Cr)	ND	1						
Manganese (Mn)	ND	1						
Iron (Fe)	ND	500						
Nickel (Ni)	ND	2						
Copper (Cu)	ND	2						
Zinc (Zn)	ND	20						
Arsenic (As)	ND	1						
Selenium (Se)	ND	1						
Silver (Ag)	ND	1						
Cadmium (Cd)	ND	1						
Antimony (Sb)	ND	1						
Mercury (Hg)	ND	0.2						
Thallium (Tl)	ND	1						

Laboratory Control Spike

File ID: 110807.B\A029_LCS.D

Sample ID: LCS-18687

Analyte	Type	LCS	Test Code: EPA Method SW6020					Analysis Date: 11/08/2007 22:34
	Units : mg/Kg		Batch ID: 18687	Analysis Date: 11/08/2007 22:34				
	Result	PQL	Run ID: ICP/MS_071108A	Prep Date:	11/08/2007	SpkVal	SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit) Qual	
Beryllium (Be)	26.5	1	25	106	77	124		
Chromium (Cr)	25.4	1	25	101	75	120		
Manganese (Mn)	265	1	250	106	79	121		
Iron (Fe)	5320	500	5000	106	80	120		
Nickel (Ni)	26.9	2	25	107	80	124		
Copper (Cu)	27.1	2	25	108	80	125		
Zinc (Zn)	27.1	20	25	108	73	135		
Arsenic (As)	26.7	1	25	107	80	120		
Selenium (Se)	26.6	1	25	106	80	120		
Silver (Ag)	24.7	1	25	99	62	132		
Cadmium (Cd)	26.4	1	25	105	80	120		
Antimony (Sb)	18.6	1	25	74	53	124		
Mercury (Hg)	0.531	0.2	0.5	106	68	140		
Thallium (Tl)	24.2	1	25	97	73	120		

Sample Matrix Spike

File ID: 110807.B\A03MS.D

Sample ID: 07110729-01AMS

Analyte	Type	MS	Test Code: EPA Method SW6020					Analysis Date: 11/08/2007 22:49
	Units : mg/Kg		Batch ID: 18687	Analysis Date: 11/08/2007 22:49				
	Result	PQL	Run ID: ICP/MS_071108A	Prep Date:	11/08/2007	SpkVal	SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit) Qual	
Beryllium (Be)	26.7	1	25	0	107	75	132	
Chromium (Cr)	37.4	1	25	13	97	50	150	
Manganese (Mn)	593	1	250	296.1	119	50	146	
Iron (Fe)	28500	500	5000	22340	123	50	150	
Nickel (Ni)	33	2	25	8.494	98	50	149	
Copper (Cu)	71.1	2	25	44.58	106	54	143	
Zinc (Zn)	168	20	25	147.7	82	50	147	
Arsenic (As)	26.1	1	25	3.139	92	60	130	
Selenium (Se)	23.4	1	25	0	94	69	130	
Silver (Ag)	26.3	1	25	2.793	94	62	132	
Cadmium (Cd)	26	1	25	0	104	70	130	
Antimony (Sb)	20.6	1	25	1.893	75	50	130	
Mercury (Hg)	0.662	0.2	0.5	0.3038	72	65	150	
Thallium (Tl)	23.5	1	25	0	94	70	130	



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:
12-Dec-07

QC Summary Report

Work Order:
07110210

Sample Matrix Spike Duplicate

File ID: 110807.B\A03MSD.D\

Sample ID: 07110729-01AMSD

Analyte	Type MSD		Test Code: EPA Method SW6020						
	Result	PQL	Batch ID: 18687			Analysis Date: 11/08/2007 22:54			
			Run ID: ICP/MS_071108A	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal %RPD(Limit)
Beryllium (Be)	25.6	1	25	0	102	75	132	26.69	4.3(20)
Chromium (Cr)	35.9	1	25	13	92	50	150	37.37	4.0(20)
Manganese (Mn)	465	1	250	296.1	67	50	146	593	24.2(20) R5
Iron (Fe)	26000	500	5000	22340	73	50	150	28470	9.0(20)
Nickel (Ni)	31.6	2	25	8.494	92	50	149	32.98	4.3(20)
Copper (Cu)	70.8	2	25	44.58	105	54	143	71.12	0.5(20)
Zinc (Zn)	173	20	25	147.7	102	50	147	168.2	3.0(20)
Arsenic (As)	26.7	1	25	3.139	94	60	130	26.05	2.6(20)
Selenium (Se)	23.8	1	25	0	95	69	130	23.38	1.7(20)
Silver (Ag)	26.2	1	25	2.793	94	62	132	26.28	0.3(20)
Cadmium (Cd)	25.8	1	25	0	103	70	130	25.96	0.6(20)
Antimony (Sb)	21.3	1	25	1.893	77	50	130	20.58	3.3(20)
Mercury (Hg)	0.708	0.2	0.5	0.3038	81	65	150	0.6617	6.8(20)
Thallium (Tl)	23.5	1	25	0	94	70	130	23.52	0.0(20)

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

R5 = MS/MSD RPD exceed the laboratory control limit. Recovery met acceptance criteria.

CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

November 08, 2007

CLS Work Order #: CQK0080
COC #:

Reyna Vallejo
Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks, NV 89431

Project Name: GEI07110210

Enclosed are the results of analyses for samples received by the laboratory on 11/02/07 15:30. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,



James Liang, Ph.D.
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES

11/08/07 11:10

Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks NV, 89431

Project: GEI07110210
Project Number: GEI07110210
Project Manager: Reyna Vallejo

CLS Work Order #: CQK0080
COC #:

Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
GEI07110210-01A (TP-Env-Naumes-317) (CQK0080-01) Soil Sampled: 11/02/07 08:45 Received: 11/02/07 15:30									
Cyanide (total)	ND	0.50	mg/kg	1	CQ09156	11/06/07	11/06/07	EPA 9010B	
GEI07110210-02A (TP-Env-Naumes-338) (CQK0080-02) Soil Sampled: 11/02/07 09:35 Received: 11/02/07 15:30									
Cyanide (total)	ND	0.50	mg/kg	1	CQ09156	11/06/07	11/06/07	EPA 9010B	
GEI07110210-03A (TP-Env-Naumes-391) (CQK0080-03) Soil Sampled: 11/02/07 10:35 Received: 11/02/07 15:30									
Cyanide (total)	ND	0.50	mg/kg	1	CQ09156	11/06/07	11/06/07	EPA 9010B	
GEI07110210-04A (TP-Env-Naumes-499) (CQK0080-04) Soil Sampled: 11/02/07 11:25 Received: 11/02/07 15:30									
Cyanide (total)	ND	0.50	mg/kg	1	CQ09156	11/06/07	11/06/07	EPA 9010B	
GEI07110210-05A (TP-Env-Naumes-425) (CQK0080-05) Soil Sampled: 11/02/07 12:10 Received: 11/02/07 15:30									
Cyanide (total)	ND	0.50	mg/kg	1	CQ09156	11/06/07	11/06/07	EPA 9010B	

CALIFORNIA LABORATORY SERVICES

11/08/07 11:10

Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks NV, 89431

Project: GEI07110210
Project Number: GEI07110210
Project Manager: Reyna Vallejo

CLS Work Order #: CQK0080
COC #:

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
GEI07110210-01A (TP-Env-Naumes-317) (CQK0080-01) Soil Sampled: 11/02/07 08:45 Received: 11/02/07 15:30									
Aldrin	ND	5.0	µg/kg	5	CQ09157	11/06/07	11/08/07	EPA 8081A	
alpha-BHC	ND	10	"	"	"	"	"	"	
beta-BHC	ND	50	"	"	"	"	"	"	
delta-BHC	ND	50	"	"	"	"	"	"	
gamma-BHC (Lindane)	ND	50	"	"	"	"	"	"	
Chlordane	ND	100	"	"	"	"	"	"	
4,4'-DDD	ND	75	"	"	"	"	"	"	
4,4'-DDE	ND	75	"	"	"	"	"	"	
4,4'-DDT	ND	75	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	75	"	"	"	"	"	"	
Endosulfan II	ND	75	"	"	"	"	"	"	
Endosulfan sulfate	ND	75	"	"	"	"	"	"	
Endrin	ND	75	"	"	"	"	"	"	
Endrin aldehyde	ND	75	"	"	"	"	"	"	
Heptachlor	ND	25	"	"	"	"	"	"	
Heptachlor epoxide	ND	10	"	"	"	"	"	"	
Methoxychlor	ND	75	"	"	"	"	"	"	
Mirex	ND	50	"	"	"	"	"	"	
Toxaphene	ND	100	"	"	"	"	"	"	
<i>Surrogate: Tetrachloro-meta-xylene</i>		110 %	46-139	"	"	"	"	"	
<i>Surrogate: Decachlorobiphenyl</i>		129 %	52-141	"	"	"	"	"	
GEI07110210-02A (TP-Env-Naumes-338) (CQK0080-02) Soil Sampled: 11/02/07 09:35 Received: 11/02/07 15:30									
Aldrin	ND	5.0	µg/kg	5	CQ09157	11/06/07	11/08/07	EPA 8081A	
alpha-BHC	ND	10	"	"	"	"	"	"	
beta-BHC	ND	50	"	"	"	"	"	"	
delta-BHC	ND	50	"	"	"	"	"	"	
gamma-BHC (Lindane)	ND	50	"	"	"	"	"	"	
Chlordane	ND	100	"	"	"	"	"	"	
4,4'-DDD	ND	75	"	"	"	"	"	"	
4,4'-DDE	ND	75	"	"	"	"	"	"	
4,4'-DDT	ND	75	"	"	"	"	"	"	
Dieldrin	15	5.0	"	"	"	"	"	"	
Endosulfan I	ND	75	"	"	"	"	"	"	
Endosulfan II	ND	75	"	"	"	"	"	"	
Endosulfan sulfate	ND	75	"	"	"	"	"	"	
Endrin	ND	75	"	"	"	"	"	"	
Endrin aldehyde	ND	75	"	"	"	"	"	"	
Heptachlor	ND	25	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

11/08/07 11:10

Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks NV, 89431

Project: GEI07110210
Project Number: GEI07110210
Project Manager: Reyna Vallejo

CLS Work Order #: CQK0080
COC #:

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
GEI07110210-02A (TP-Env-Naumes-338) (CQK0080-02) Soil Sampled: 11/02/07 09:35 Received: 11/02/07 15:30									
Heptachlor epoxide	ND	10	µg/kg	5	CQ09157	11/06/07	11/08/07	EPA 8081A	
Methoxychlor	ND	75	"	"	"	"	"	"	
Mirex	ND	50	"	"	"	"	"	"	
Toxaphene	ND	100	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene	74.7 %	46-139		"	"	"	"	"	
Surrogate: Decachlorobiphenyl	85.3 %	52-141		"	"	"	"	"	
GEI07110210-03A (TP-Env-Naumes-391) (CQK0080-03) Soil Sampled: 11/02/07 10:35 Received: 11/02/07 15:30									
Aldrin	ND	5.0	µg/kg	5	CQ09157	11/06/07	11/08/07	EPA 8081A	
alpha-BHC	ND	10	"	"	"	"	"	"	
beta-BHC	ND	50	"	"	"	"	"	"	
delta-BHC	ND	50	"	"	"	"	"	"	
gamma-BHC (Lindane)	ND	50	"	"	"	"	"	"	
Chlordane	ND	100	"	"	"	"	"	"	
4,4'-DDD	ND	75	"	"	"	"	"	"	
4,4'-DDE	ND	75	"	"	"	"	"	"	
4,4'-DDT	ND	75	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	75	"	"	"	"	"	"	
Endosulfan II	ND	75	"	"	"	"	"	"	
Endosulfan sulfate	ND	75	"	"	"	"	"	"	
Endrin	ND	75	"	"	"	"	"	"	
Endrin aldehyde	ND	75	"	"	"	"	"	"	
Heptachlor	ND	25	"	"	"	"	"	"	
Heptachlor epoxide	ND	10	"	"	"	"	"	"	
Methoxychlor	ND	75	"	"	"	"	"	"	
Mirex	ND	50	"	"	"	"	"	"	
Toxaphene	ND	100	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene	97.0 %	46-139		"	"	"	"	"	
Surrogate: Decachlorobiphenyl	128 %	52-141		"	"	"	"	"	
GEI07110210-04A (TP-Env-Naumes-499) (CQK0080-04) Soil Sampled: 11/02/07 11:25 Received: 11/02/07 15:30									
Aldrin	ND	5.0	µg/kg	5	CQ09157	11/06/07	11/08/07	EPA 8081A	
alpha-BHC	ND	10	"	"	"	"	"	"	
beta-BHC	ND	50	"	"	"	"	"	"	
delta-BHC	ND	50	"	"	"	"	"	"	
gamma-BHC (Lindane)	ND	50	"	"	"	"	"	"	
Chlordane	ND	100	"	"	"	"	"	"	
4,4'-DDD	ND	75	"	"	"	"	"	"	
4,4'-DDE	ND	75	"	"	"	"	"	"	

CA DOHS ELAP Accreditation/Registration Number 1233

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CALIFORNIA LABORATORY SERVICES

11/08/07 11:10

Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks NV, 89431

Project: GEI07110210
Project Number: GEI07110210
Project Manager: Reyna Vallejo

CLS Work Order #: CQK0080
COC #:

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
GEI07110210-04A (TP-Env-Naumes-499) (CQK0080-04) Soil Sampled: 11/02/07 11:25 Received: 11/02/07 15:30									
4,4'-DDT	ND	75	µg/kg	5	CQ09157	11/06/07	11/08/07	EPA 8081A	
Dieldrin	6.5	5.0	"	"	"	"	"	"	"
Endosulfan I	ND	75	"	"	"	"	"	"	"
Endosulfan II	ND	75	"	"	"	"	"	"	"
Endosulfan sulfate	ND	75	"	"	"	"	"	"	"
Endrin	ND	75	"	"	"	"	"	"	"
Endrin aldehyde	ND	75	"	"	"	"	"	"	"
Heptachlor	ND	25	"	"	"	"	"	"	"
Heptachlor epoxide	ND	10	"	"	"	"	"	"	"
Methoxychlor	ND	75	"	"	"	"	"	"	"
Mirex	ND	50	"	"	"	"	"	"	"
Toxaphene	ND	100	"	"	"	"	"	"	"
Surrogate: Tetrachloro-meta-xylene	129 %	46-139		"	"	"	"	"	"
Surrogate: Decachlorobiphenyl	132 %	52-141		"	"	"	"	"	"
GEI07110210-05A (TP-Env-Naumes-425) (CQK0080-05) Soil Sampled: 11/02/07 12:10 Received: 11/02/07 15:30									
Aldrin	ND	5.0	µg/kg	5	CQ09157	11/06/07	11/08/07	EPA 8081A	
alpha-BHC	ND	10	"	"	"	"	"	"	"
beta-BHC	ND	50	"	"	"	"	"	"	"
delta-BHC	ND	50	"	"	"	"	"	"	"
gamma-BHC (Lindane)	ND	50	"	"	"	"	"	"	"
Chlordane	ND	100	"	"	"	"	"	"	"
4,4'-DDD	ND	75	"	"	"	"	"	"	"
4,4'-DDE	ND	75	"	"	"	"	"	"	"
4,4'-DDT	ND	75	"	"	"	"	"	"	"
Dieldrin	ND	5.0	"	"	"	"	"	"	"
Endosulfan I	ND	75	"	"	"	"	"	"	"
Endosulfan II	ND	75	"	"	"	"	"	"	"
Endosulfan sulfate	ND	75	"	"	"	"	"	"	"
Endrin	ND	75	"	"	"	"	"	"	"
Endrin aldehyde	ND	75	"	"	"	"	"	"	"
Heptachlor	ND	25	"	"	"	"	"	"	"
Heptachlor epoxide	ND	10	"	"	"	"	"	"	"
Methoxychlor	ND	75	"	"	"	"	"	"	"
Mirex	ND	50	"	"	"	"	"	"	"
Toxaphene	ND	100	"	"	"	"	"	"	"
Surrogate: Tetrachloro-meta-xylene	122 %	46-139		"	"	"	"	"	"
Surrogate: Decachlorobiphenyl	128 %	52-141		"	"	"	"	"	"

CA DOHS ELAP Accreditation/Registration Number 1233

CALIFORNIA LABORATORY SERVICES

11/08/07 11:10

Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks NV, 89431

Project: GEI07110210
Project Number: GEI07110210
Project Manager: Reyna Vallejo

CLS Work Order #: CQK0080
COC #:

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
GEI07110210-01A (TP-Env-Naumes-317) (CQK0080-01) Soil Sampled: 11/02/07 08:45 Received: 11/02/07 15:30									
Aroclor 1016	ND	20	µg/kg	1	CQ09144	11/06/07	11/06/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
<i>Surrogate: Decachlorobiphenyl</i>		88.8 %	50-150	"	"	"	"	"	
GEI07110210-02A (TP-Env-Naumes-338) (CQK0080-02) Soil Sampled: 11/02/07 09:35 Received: 11/02/07 15:30									
Aroclor 1016	ND	20	µg/kg	1	CQ09144	11/06/07	11/06/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
<i>Surrogate: Decachlorobiphenyl</i>		52.2 %	50-150	"	"	"	"	"	
GEI07110210-03A (TP-Env-Naumes-391) (CQK0080-03) Soil Sampled: 11/02/07 10:35 Received: 11/02/07 15:30									
Aroclor 1016	ND	20	µg/kg	1	CQ09144	11/06/07	11/06/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
<i>Surrogate: Decachlorobiphenyl</i>		98.0 %	50-150	"	"	"	"	"	
GEI07110210-04A (TP-Env-Naumes-499) (CQK0080-04) Soil Sampled: 11/02/07 11:25 Received: 11/02/07 15:30									
Aroclor 1016	ND	20	µg/kg	1	CQ09144	11/06/07	11/06/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
<i>Surrogate: Decachlorobiphenyl</i>		53.0 %	50-150	"	"	"	"	"	
GEI07110210-05A (TP-Env-Naumes-425) (CQK0080-05) Soil Sampled: 11/02/07 12:10 Received: 11/02/07 15:30									

CA DOHS ELAP Accreditation/Registration Number 1233

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CALIFORNIA LABORATORY SERVICES

11/08/07 11:10

Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks NV, 89431

Project: GEI07110210
Project Number: GEI07110210
Project Manager: Reyna Vallejo

CLS Work Order #: CQK0080
COC #:

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
GEI07110210-05A (TP-Env-Naumes-425) (CQK0080-05) Soil Sampled: 11/02/07 12:10 Received: 11/02/07 15:30									
Aroclor 1016	ND	20	µg/kg	1	CQ09144	11/06/07	11/06/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
<i>Surrogate: Decachlorobiphenyl</i>		57.2 %		50-150		"	"	"	

CALIFORNIA LABORATORY SERVICES

11/08/07 11:10

Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks NV, 89431

Project: GEI07110210
Project Number: GEI07110210
Project Manager: Reyna Vallejo

CLS Work Order #: CQK0080
COC #:

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
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Batch CQ09156 - General Preparation

Blank (CQ09156-BLK1)										Prepared & Analyzed: 11/06/07
Cyanide (total)	ND	0.50	mg/kg							
LCS (CQ09156-BS1)										Prepared & Analyzed: 11/06/07
Cyanide (total)	4.52	0.50	mg/kg	5.00		90.3	75-125			
LCS Dup (CQ09156-BSD1)										Prepared & Analyzed: 11/06/07
Cyanide (total)	4.48	0.50	mg/kg	5.00		89.6	75-125	0.778	25	
Matrix Spike (CQ09156-MS1)		Source: CQK0080-01								Prepared & Analyzed: 11/06/07
Cyanide (total)	4.68	0.50	mg/kg	5.00	0.0950	91.8	75-125			
Matrix Spike Dup (CQ09156-MSD1)		Source: CQK0080-01								Prepared & Analyzed: 11/06/07
Cyanide (total)	4.66	0.50	mg/kg	5.00	0.0950	91.4	75-125	0.428	25	

CALIFORNIA LABORATORY SERVICES

11/08/07 11:10

Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks NV, 89431

Project: GEI07110210
Project Number: GEI07110210
Project Manager: Reyna Vallejo

CLS Work Order #: CQK0080
COC #:

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
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Batch CQ09157 - LUFT-DHS GCNV

Blank (CQ09157-BLK1) Prepared: 11/06/07 Analyzed: 11/08/07

Aldrin	ND	1.0	µg/kg							
alpha-BHC	ND	2.0	"							
beta-BHC	ND	10	"							
delta-BHC	ND	10	"							
gamma-BHC (Lindane)	ND	10	"							
Chlordane	ND	20	"							
4,4'-DDD	ND	15	"							
4,4'-DDE	ND	15	"							
4,4'-DDT	ND	15	"							
Dieldrin	ND	1.0	"							
Endosulfan I	ND	15	"							
Endosulfan II	ND	15	"							
Endosulfan sulfate	ND	15	"							
Endrin	ND	15	"							
Endrin aldehyde	ND	15	"							
Heptachlor	ND	5.0	"							
Heptachlor epoxide	ND	2.0	"							
Methoxychlor	ND	15	"							
Mirex	ND	10	"							
Toxaphene	ND	20	"							
<i>Surrogate: Tetrachloro-meta-xylene</i>	7.28	"	8.33		87.3	46-139				
<i>Surrogate: Decachlorobiphenyl</i>	8.96	"	8.33		108	52-141				

LCS (CQ09157-BS1) Prepared: 11/06/07 Analyzed: 11/08/07

Aldrin	12.8	1.0	µg/kg	16.7	76.9	47-132
gamma-BHC (Lindane)	12.4	10	"	16.7	74.5	56-133
4,4'-DDT	16.7	15	"	16.7	100	46-137
Dieldrin	14.4	1.0	"	16.7	86.2	44-143
Endrin	14.9	15	"	16.7	89.4	30-147
Heptachlor	13.1	5.0	"	16.7	78.6	33-148
<i>Surrogate: Tetrachloro-meta-xylene</i>	5.25	"	8.33		63.0	46-139
<i>Surrogate: Decachlorobiphenyl</i>	6.98	"	8.33		83.7	52-141

CALIFORNIA LABORATORY SERVICES

11/08/07 11:10

Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks NV, 89431

Project: GEI07110210
Project Number: GEI07110210
Project Manager: Reyna Vallejo

CLS Work Order #: CQK0080
COC #:

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Limit Notes
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Batch CQ09157 - LUFT-DHS GCNV

LCS Dup (CQ09157-BSD1)							Prepared: 11/06/07	Analyzed: 11/08/07
Aldrin	12.7	1.0	µg/kg	16.7	76.3	47-132	0.725	30
gamma-BHC (Lindane)	12.2	10	"	16.7	73.2	56-133	1.70	30
4,4'-DDT	16.4	15	"	16.7	98.6	46-137	1.45	30
Dieldrin	14.2	1.0	"	16.7	85.5	44-143	0.892	30
Endrin	14.6	15	"	16.7	87.8	30-147	1.73	30
Heptachlor	12.9	5.0	"	16.7	77.2	33-148	1.83	30
Surrogate: Tetrachloro-meta-xylene	5.00		"	8.33	59.9	46-139		
Surrogate: Decachlorobiphenyl	6.59		"	8.33	79.1	52-141		
Matrix Spike (CQ09157-MS1)							Source: CQK0080-01	Prepared: 11/06/07
Aldrin	15.5	5.0	µg/kg	16.7	ND	93.3	47-138	
gamma-BHC (Lindane)	12.9	50	"	16.7	ND	77.4	38-144	
4,4'-DDT	19.9	75	"	16.7	ND	119	41-157	
Dieldrin	17.2	5.0	"	16.7	ND	103	46-155	
Endrin	16.8	75	"	16.7	ND	101	34-149	
Heptachlor	15.1	25	"	16.7	ND	90.5	36-155	
Surrogate: Tetrachloro-meta-xylene	18.2		"	20.8		87.3	46-139	
Surrogate: Decachlorobiphenyl	20.5		"	20.8		98.6	52-141	
Matrix Spike Dup (CQ09157-MSD1)							Source: CQK0080-01	Prepared: 11/06/07
Aldrin	16.8	5.0	µg/kg	16.7	ND	101	47-138	7.57
gamma-BHC (Lindane)	14.9	50	"	16.7	ND	89.1	38-144	14.1
4,4'-DDT	19.8	75	"	16.7	ND	119	41-157	0.635
Dieldrin	17.7	5.0	"	16.7	ND	106	46-155	3.36
Endrin	16.9	75	"	16.7	ND	102	34-149	0.954
Heptachlor	16.9	25	"	16.7	ND	101	36-155	11.3
Surrogate: Tetrachloro-meta-xylene	23.3		"	20.8		112	46-139	
Surrogate: Decachlorobiphenyl	24.4		"	20.8		117	52-141	

CALIFORNIA LABORATORY SERVICES

11/08/07 11:10

Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks NV, 89431

Project: GEI07110210
Project Number: GEI07110210
Project Manager: Reyna Vallejo

CLS Work Order #: CQK0080
COC #:

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Limit Notes
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Batch CQ09144 - LUFT-DHS GCNV

Blank (CQ09144-BLK1)							Prepared & Analyzed: 11/06/07		
Aroclor 1016	ND	20	µg/kg						
Aroclor 1221	ND	20	"						
Aroclor 1232	ND	20	"						
Aroclor 1242	ND	20	"						
Aroclor 1248	ND	20	"						
Aroclor 1254	ND	20	"						
Aroclor 1260	ND	20	"						
<i>Surrogate: Decachlorobiphenyl</i>	7.05	"		8.33		84.6	50-150		
LCS (CQ09144-BS1)							Prepared & Analyzed: 11/06/07		
Aroclor 1260	79.5	20	µg/kg	83.3		95.4	29-131		
<i>Surrogate: Decachlorobiphenyl</i>	8.02	"		8.33		96.2	50-150		
LCS Dup (CQ09144-BSD1)							Prepared & Analyzed: 11/06/07		
Aroclor 1260	78.5	20	µg/kg	83.3		94.2	29-131	1.22	30
<i>Surrogate: Decachlorobiphenyl</i>	7.37	"		8.33		88.4	50-150		
Matrix Spike (CQ09144-MS1)							Prepared & Analyzed: 11/06/07		
Aroclor 1260	79.0	20	µg/kg	83.3	ND	94.8	29-131		
<i>Surrogate: Decachlorobiphenyl</i>	7.85	"		8.33		94.2	50-150		
Matrix Spike Dup (CQ09144-MSD1)							Prepared & Analyzed: 11/06/07		
Aroclor 1260	78.9	20	µg/kg	83.3	ND	94.6	29-131	0.110	30
<i>Surrogate: Decachlorobiphenyl</i>	8.12	"		8.33		97.4	50-150		

CA DOHS ELAP Accreditation/Registration Number 1233

3249 Fitzgerald Road Rancho Cordova, CA 95742 www.californialab.com 916-638-7301 Fax: 916-638-4510

CALIFORNIA LABORATORY SERVICES

11/08/07 11:10

Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks NV, 89431

Project: GEI07110210
Project Number: GEI07110210
Project Manager: Reyna Vallejo

CLS Work Order #: CQK0080
COC #:

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Billing Information :

CHAIN-OF-CUSTODY RECORD

AMENDED
Page 1 of 1

Alpha Analytical, Inc.

255 Glendale Avenue, Suite 21 Sparks, Nevada 8943 -5778
TEL: (775) 355-1044 FAX: (775) 355-0406

Report Attention **Phone Number** **E-Mail Address**

Andrew Adinolfi (916) 631-4500 x aadinolfi@geiconsumitants.com

Client:
GEI Consultants
10860 Gold Center Dr. Ste. 350

Rancho Cordova, CA 95670

PO :

Client's COC # : 17808

Job : 050115/TRLIA

QC Level : 1 = Final Rpt Only

WorkOrder : GEIC07110210
Report Due By : 5:00 PM **On :** 19-Nov-07

EDD Required : No
Sampled by : Client

Cooler Temp **Samples Received**
4 °C **02-Nov-07**

Alpha Sample ID	Client Sample ID	Collection Matrix	No. of Bottles	Alpha Date	Sub TAT	Requested Tests					Sample Remarks
						8081_S	8082_S	CYANIDE_T	METALS_S	O	
GEI07110210-01A	TP-ENV-NAUMES-317	SO	11/02/07	1	1	10	PEST	PCB	Cyanide	Spec. list	8081, 8082, and Cyanide subbed to CLS.
GEI07110210-02A	TP-ENV-NAUMES-338	SO	11/02/07	1	1	10	PEST	PCB	Cyanide	Spec. list	8081, 8082, and Cyanide subbed to CLS.
GEI07110210-03A	TP-ENV-NAUMES-391	SO	11/02/07	1	1	10	PEST	PCB	Cyanide	Spec. list	8081, 8082, and Cyanide subbed to CLS.
GEI07110210-04A	TP-ENV-NAUMES-499	SO	11/02/07	1	1	10	PEST	PCB	Cyanide	Spec. list	8081, 8082, and Cyanide subbed to CLS.
GEI07110210-05A	TP-ENV-NAUMES-425	SO	11/02/07	1	1	10	PEST	PCB	Cyanide	Spec. list	8081, 8082, and Cyanide subbed to CLS.

Comments: Security seals intact. Frozen ice. COC prelogged in order for Sacramento office to sub 8081, 8082, and Cyanide to CLS. Per phone conversation w/ Andrew 11/5/07 @ 9:10 he wants the same analyses as work order GEI07092653. ES : Amended 12/11/07 @ 14:40 to add Hg to Metals list, per Andrew. LE

Signature _____

Print Name _____

Date/Time _____

Company _____

2/1/07 14:40
Alpha Analytical, Inc.

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.
Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-VoA S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

CHAIN-OF-CUSTODY RECORD

CA

Alpha Analytical, Inc.

255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0466

Client:
GEI Consultants
10860 Gold Center Dr. Ste. 350

Rancho Cordova, CA 95670

PO : Client's COC # : 17808

QC Level : 1 = Final Rpt Only

Report Attention Phone Number EMail Address

Andrew Adinolfi (916) 631-4500 x aadinolfi@geiconsultants.com

WorkOrder : GEIC07110210
Report Due By : 5:00 PM On : 19-Nov-07

Comments:

Security seals intact. Frozen ice. COC prelogged in order for Sacramento office to sub 8081, 8082, and Cyanide to CLS. Per phone conversation w/ Andrew 11/5/07 @ 9:10 he wants the same analyses as work order : GEI07092653. ES

Logged in by: Elizabeth Juraszau Elizabeth Juraszau **Print Name** **Signature** **Date/Time**
Print Name **Company** **Date/Time**
Print Name **Company** **Date/Time**

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.
Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other)
Bottle Type: L-Liter V-Liter S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Alpha Sample ID	Client Sample ID	Collection Matrix	No. of Bottles	Requested Tests			Sample Remarks
				No. Alpha	Sub	TAT	
GEI07110210-01A	TP-ENV-NAUMES-317	SO	11/02/07 08:45	1	1	10	PEST PCB Cyanide Spec. list 8081, 8082, and Cyanide subbed to CLS.
GEI07110210-02A	TP-ENV-NAUMES-338	SO	11/02/07 09:35	1	1	10	PEST PCB Cyanide Spec. list 8081, 8082, and Cyanide subbed to CLS.
GEI07110210-03A	TP-ENV-NAUMES-391	SO	11/02/07 10:35	1	1	10	PEST PCB Cyanide Spec. list 8081, 8082, and Cyanide subbed to CLS.
GEI07110210-04A	TP-ENV-NAUMES-499	SO	11/02/07 11:25	1	1	10	PEST PCB Cyanide Spec. list 8081, 8082, and Cyanide subbed to CLS.
GEI07110210-05A	TP-ENV-NAUMES-425	SO	11/02/07 12:10	1	1	10	PEST PCB Cyanide Spec. list 8081, 8082, and Cyanide subbed to CLS.

Billing Information: GEI CONSULTANTS INC
 Name GEI CONSULTANTS INC
 Address 10860 GOLF CENTER DR STE 350
 City, State, Zip RANCHO CORDOVA, CA 95870
 Phone Number (916) 631-4500 Fax (916) 631-4500



Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21
Sparks, Nevada 89431-5778
Phone (775) 355-1044
Fax (775) 355-0406

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21
Sparks, Nevada 89431-5778
Phone (775) 355-1044
Fax (775) 355-0406

Samples Collected From Which State?
AZ CA NV WA
ID OR OTHER
Page #

Samples Collected From Which State?

AZ	—	CA	✓	NV	—	WA	—
ID	—	OR	—	OTHER	—		

Analyses Required							
Client Name TRLIA		Job #		Required QC Level?			
Address		EMail Address <i>andinoliticgeiconsultants.com</i>		<input checked="" type="checkbox"/> EDD	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	I II III IV
City, State, Zip		Phone # <i>510-550-2902</i>		Global ID # _____			
Time Sampled	Date Sampled	Matrix* See Key Below	Sampled by Lab ID Number (<i>Office Use Only</i>)	Report Attention	Sample Description	TAT	Total and type of containers ** See below
8:45 11/2	SC	GET07110210-01	TP-ENV-NAAMES - 317	Std	2 S	✓	✓
9:35 11/2	SC	-02	TP-ENV-NAAMES - 338	Std	2 S	✓	✓
10:35 11/2	SC	-03	TP-ENV-NAAMES - 391	Std	2 S	✓	✓
10:25 11/2	SC	-04	TP-ENV-NAAMES - 499	Std	2 S	✓	✓
12:10 11/2	SC	-05	TP-ENV-NAAMES - 425	Std	2 S	✓	✓
REMARKS							
<i>TP-ENV-NAAMES - 317</i>							
<i>TP-ENV-NAAMES - 338</i>							
<i>TP-ENV-NAAMES - 391</i>							
<i>TP-ENV-NAAMES - 499</i>							
<i>TP-ENV-NAAMES - 425</i>							
<i>SubTotal</i>							
<i># 07110210</i>							

ADDITIONAL INSTRUCTIONS:

Signature	Print Name	Company	Date	Time
Relinquished by 	Justin Cross	GEI Consultants	11-2-07	14:10
Received by 		Alpha	11-2-07	14:10
Relinquished by 	E. Shrivastava	Alpha	11-5-07	9:33
Received by 				

Key: AQ - Aqueous

Note: Scenarios are discounted 6% over 24 hours and remonetized until the current

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this coc. The liability of the laboratory is limited to the amount paid for the report.



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

GEI Consultants
10860 Gold Center Dr. Ste. 350
Rancho Cordova, CA 95670

Attn: Andrew Adinolfi

Phone: (916) 631-4500

Fax:

Date Received : 11/06/07

Job#: 050115/TRLIA

Metals by ICPMS
EPA Method SW6020/SW6020A

	Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID :	TP-ENV-518				
Lab ID :	GEI07110654-01A	Beryllium (Be)	ND	1.0 mg/Kg	11/05/07 11/08/07
		Chromium (Cr)	49	1.0 mg/Kg	11/05/07 11/08/07
		Manganese (Mn)	460	1.0 mg/Kg	11/05/07 11/08/07
		Iron (Fe)	33,000	500 mg/Kg	11/05/07 11/08/07
		Nickel (Ni)	42	2.0 mg/Kg	11/05/07 11/08/07
		Copper (Cu)	48	2.0 mg/Kg	11/05/07 11/08/07
		Zinc (Zn)	49	20 mg/Kg	11/05/07 11/08/07
		Arsenic (As)	7.2	1.0 mg/Kg	11/05/07 11/08/07
		Selenium (Se)	ND	1.0 mg/Kg	11/05/07 11/08/07
		Silver (Ag)	ND	1.0 mg/Kg	11/05/07 11/08/07
		Cadmium (Cd)	4.9	1.0 mg/Kg	11/05/07 11/08/07
		Antimony (Sb)	ND	1.0 mg/Kg	11/05/07 11/08/07
		Mercury (Hg)	ND	0.20 mg/Kg	11/05/07 11/08/07
		Thallium (Tl)	ND	1.0 mg/Kg	11/05/07 11/08/07
Client ID :	TP-ENV-520				
Lab ID :	GEI07110654-02A	Beryllium (Be)	ND	1.0 mg/Kg	11/05/07 11/08/07
		Chromium (Cr)	41	1.0 mg/Kg	11/05/07 11/08/07
		Manganese (Mn)	310	1.0 mg/Kg	11/05/07 11/08/07
		Iron (Fe)	24,000	500 mg/Kg	11/05/07 11/08/07
		Nickel (Ni)	48	2.0 mg/Kg	11/05/07 11/08/07
		Copper (Cu)	32	2.0 mg/Kg	11/05/07 11/08/07
		Zinc (Zn)	36	20 mg/Kg	11/05/07 11/08/07
		Arsenic (As)	6.8	1.0 mg/Kg	11/05/07 11/08/07
		Selenium (Se)	ND	1.0 mg/Kg	11/05/07 11/08/07
		Silver (Ag)	ND	1.0 mg/Kg	11/05/07 11/08/07
		Cadmium (Cd)	ND	1.0 mg/Kg	11/05/07 11/08/07
		Antimony (Sb)	ND	1.0 mg/Kg	11/05/07 11/08/07
		Mercury (Hg)	ND	0.20 mg/Kg	11/05/07 11/08/07
		Thallium (Tl)	ND	1.0 mg/Kg	11/05/07 11/08/07



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Client ID : **TP-ENV-522**

Lab ID : GEI07110654-03A

Beryllium (Be)	ND	1.0 mg/Kg	11/05/07	11/08/07
Chromium (Cr)	50	1.0 mg/Kg	11/05/07	11/08/07
Manganese (Mn)	480	1.0 mg/Kg	11/05/07	11/08/07
Iron (Fe)	30,000	500 mg/Kg	11/05/07	11/08/07
Nickel (Ni)	54	2.0 mg/Kg	11/05/07	11/08/07
Copper (Cu)	44	2.0 mg/Kg	11/05/07	11/08/07
Zinc (Zn)	57	20 mg/Kg	11/05/07	11/08/07
Arsenic (As)	5.3	1.0 mg/Kg	11/05/07	11/08/07
Selenium (Se)	ND	1.0 mg/Kg	11/05/07	11/08/07
Silver (Ag)	ND	1.0 mg/Kg	11/05/07	11/08/07
Cadmium (Cd)	ND	1.0 mg/Kg	11/05/07	11/08/07
Antimony (Sb)	ND	1.0 mg/Kg	11/05/07	11/08/07
Mercury (Hg)	ND	0.20 mg/Kg	11/05/07	11/08/07
Thallium (Tl)	ND	1.0 mg/Kg	11/05/07	11/08/07

Client ID : **TP-ENV-521**

Lab ID : GEI07110654-04A

Beryllium (Be)	ND	1.0 mg/Kg	11/05/07	11/09/07
Chromium (Cr)	34	1.0 mg/Kg	11/05/07	11/09/07
Manganese (Mn)	400	1.0 mg/Kg	11/05/07	11/09/07
Iron (Fe)	22,000	500 mg/Kg	11/05/07	11/09/07
Nickel (Ni)	37	2.0 mg/Kg	11/05/07	11/09/07
Copper (Cu)	27	2.0 mg/Kg	11/05/07	11/09/07
Zinc (Zn)	37	20 mg/Kg	11/05/07	11/09/07
Arsenic (As)	4.2	1.0 mg/Kg	11/05/07	11/09/07
Selenium (Se)	ND	1.0 mg/Kg	11/05/07	11/09/07
Silver (Ag)	ND	1.0 mg/Kg	11/05/07	11/09/07
Cadmium (Cd)	ND	1.0 mg/Kg	11/05/07	11/09/07
Antimony (Sb)	ND	1.0 mg/Kg	11/05/07	11/09/07
Mercury (Hg)	ND	0.20 mg/Kg	11/05/07	11/09/07
Thallium (Tl)	ND	1.0 mg/Kg	11/05/07	11/09/07

Client ID : **TP-ENV-519**

Lab ID : GEI07110654-05A

Beryllium (Be)	ND	1.0 mg/Kg	11/06/07	11/09/07
Chromium (Cr)	43	1.0 mg/Kg	11/06/07	11/09/07
Manganese (Mn)	310	1.0 mg/Kg	11/06/07	11/09/07
Iron (Fe)	24,000	500 mg/Kg	11/06/07	11/09/07
Nickel (Ni)	45	2.0 mg/Kg	11/06/07	11/09/07
Copper (Cu)	32	2.0 mg/Kg	11/06/07	11/09/07
Zinc (Zn)	43	20 mg/Kg	11/06/07	11/09/07
Arsenic (As)	3.9	1.0 mg/Kg	11/06/07	11/09/07
Selenium (Se)	ND	1.0 mg/Kg	11/06/07	11/09/07
Silver (Ag)	ND	1.0 mg/Kg	11/06/07	11/09/07
Cadmium (Cd)	ND	1.0 mg/Kg	11/06/07	11/09/07
Antimony (Sb)	ND	1.0 mg/Kg	11/06/07	11/09/07
Mercury (Hg)	ND	0.20 mg/Kg	11/06/07	11/09/07
Thallium (Tl)	ND	1.0 mg/Kg	11/06/07	11/09/07



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Client ID : **TP-ENV-515**

Lab ID : GEI07110654-06A

Beryllium (Be)	ND	1.0 mg/Kg	11/06/07	11/09/07
Chromium (Cr)	81	1.0 mg/Kg	11/06/07	11/09/07
Manganese (Mn)	360	1.0 mg/Kg	11/06/07	11/09/07
Iron (Fe)	25,000	500 mg/Kg	11/06/07	11/09/07
Nickel (Ni)	91	2.0 mg/Kg	11/06/07	11/09/07
Copper (Cu)	33	2.0 mg/Kg	11/06/07	11/09/07
Zinc (Zn)	50	20 mg/Kg	11/06/07	11/09/07
Arsenic (As)	3.3	1.0 mg/Kg	11/06/07	11/09/07
Selenium (Se)	ND	1.0 mg/Kg	11/06/07	11/09/07
Silver (Ag)	ND	1.0 mg/Kg	11/06/07	11/09/07
Cadmium (Cd)	ND	1.0 mg/Kg	11/06/07	11/09/07
Antimony (Sb)	ND	1.0 mg/Kg	11/06/07	11/09/07
Mercury (Hg)	ND	0.20 mg/Kg	11/06/07	11/09/07
Thallium (Tl)	ND	1.0 mg/Kg	11/06/07	11/09/07

Client ID : **TP-ENV-516**

Lab ID : GEI07110654-07A

Beryllium (Be)	ND	1.0 mg/Kg	11/06/07	11/09/07
Chromium (Cr)	86	1.0 mg/Kg	11/06/07	11/09/07
Manganese (Mn)	460	1.0 mg/Kg	11/06/07	11/09/07
Iron (Fe)	27,000	500 mg/Kg	11/06/07	11/09/07
Nickel (Ni)	91	2.0 mg/Kg	11/06/07	11/09/07
Copper (Cu)	44	2.0 mg/Kg	11/06/07	11/09/07
Zinc (Zn)	52	20 mg/Kg	11/06/07	11/09/07
Arsenic (As)	4.2	1.0 mg/Kg	11/06/07	11/09/07
Selenium (Se)	ND	1.0 mg/Kg	11/06/07	11/09/07
Silver (Ag)	ND	1.0 mg/Kg	11/06/07	11/09/07
Cadmium (Cd)	ND	1.0 mg/Kg	11/06/07	11/09/07
Antimony (Sb)	ND	1.0 mg/Kg	11/06/07	11/09/07
Mercury (Hg)	ND	0.20 mg/Kg	11/06/07	11/09/07
Thallium (Tl)	ND	1.0 mg/Kg	11/06/07	11/09/07

Client ID : **TP-ENV-517**

Lab ID : GEI07110654-08A

Beryllium (Be)	ND	1.0 mg/Kg	11/06/07	11/09/07
Chromium (Cr)	61	1.0 mg/Kg	11/06/07	11/09/07
Manganese (Mn)	360	1.0 mg/Kg	11/06/07	11/09/07
Iron (Fe)	25,000	500 mg/Kg	11/06/07	11/09/07
Nickel (Ni)	52	2.0 mg/Kg	11/06/07	11/09/07
Copper (Cu)	34	2.0 mg/Kg	11/06/07	11/09/07
Zinc (Zn)	43	20 mg/Kg	11/06/07	11/09/07
Arsenic (As)	8.3	1.0 mg/Kg	11/06/07	11/09/07
Selenium (Se)	ND	1.0 mg/Kg	11/06/07	11/09/07
Silver (Ag)	ND	1.0 mg/Kg	11/06/07	11/09/07
Cadmium (Cd)	ND	1.0 mg/Kg	11/06/07	11/09/07
Antimony (Sb)	ND	1.0 mg/Kg	11/06/07	11/09/07
Mercury (Hg)	0.41	0.20 mg/Kg	11/06/07	11/09/07
Thallium (Tl)	ND	1.0 mg/Kg	11/06/07	11/09/07

This replaces the report originally signed 11/20/07, due to a change in the analyte list, per client request.

Sample results were calculated on a wet weight basis.

ND = Not Detected

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.

12/12/07

Report Date



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:
12-Dec-07

QC Summary Report

Work Order:
07110654

Method Blank

File ID: 110807.B\A028_ICB.D

Sample ID: MB-18687

Analyte	Type	MBLK	Test Code: EPA Method SW6020					
	Units : mg/Kg		Batch ID: 18687	Analysis Date: 11/08/2007 22:29				
Result	PQL	Run ID: ICP/MS_071108A	Prep Date:	11/08/2007				
Beryllium (Be)	ND	1						
Chromium (Cr)	ND	1						
Manganese (Mn)	ND	1						
Iron (Fe)	ND	500						
Nickel (Ni)	ND	2						
Copper (Cu)	ND	2						
Zinc (Zn)	ND	20						
Arsenic (As)	ND	1						
Selenium (Se)	ND	1						
Silver (Ag)	ND	1						
Cadmium (Cd)	ND	1						
Antimony (Sb)	ND	1						
Mercury (Hg)	ND	0.2						
Thallium (Tl)	ND	1						

Laboratory Control Spike

File ID: 110807.B\A029_LCS.D

Sample ID: LCS-18687

Analyte	Type	LCS	Test Code: EPA Method SW6020					
	Units : mg/Kg		Batch ID: 18687	Analysis Date: 11/08/2007 22:34				
Result	PQL	Run ID: ICP/MS_071108A	Prep Date:	11/08/2007				
Beryllium (Be)	26.5	1	25	106	77	124		
Chromium (Cr)	25.4	1	25	101	75	120		
Manganese (Mn)	265	1	250	106	79	121		
Iron (Fe)	5320	500	5000	106	80	120		
Nickel (Ni)	26.9	2	25	107	80	124		
Copper (Cu)	27.1	2	25	108	80	125		
Zinc (Zn)	27.1	20	25	108	73	135		
Arsenic (As)	26.7	1	25	107	80	120		
Selenium (Se)	26.6	1	25	106	80	120		
Silver (Ag)	24.7	1	25	99	62	132		
Cadmium (Cd)	26.4	1	25	105	80	120		
Antimony (Sb)	18.6	1	25	74	53	124		
Mercury (Hg)	0.531	0.2	0.5	106	68	140		
Thallium (Tl)	24.2	1	25	97	73	120		

Sample Matrix Spike

File ID: 110807.B\A03MS.D

Sample ID: 07110729-01AMS

Analyte	Type	MS	Test Code: EPA Method SW6020					
	Units : mg/Kg		Batch ID: 18687	Analysis Date: 11/08/2007 22:49				
Result	PQL	Run ID: ICP/MS_071108A	Prep Date:	11/08/2007				
Beryllium (Be)	26.7	1	25	0	107	75	132	
Chromium (Cr)	37.4	1	25	13	97	50	150	
Manganese (Mn)	593	1	250	296.1	119	50	146	
Iron (Fe)	28500	500	5000	22340	123	50	150	
Nickel (Ni)	33	2	25	8.494	98	50	149	
Copper (Cu)	71.1	2	25	44.58	106	54	143	
Zinc (Zn)	168	20	25	147.7	82	50	147	
Arsenic (As)	26.1	1	25	3.139	92	60	130	
Selenium (Se)	23.4	1	25	0	94	69	130	
Silver (Ag)	26.3	1	25	2.793	94	62	132	
Cadmium (Cd)	26	1	25	0	104	70	130	
Antimony (Sb)	20.6	1	25	1.893	75	50	130	
Mercury (Hg)	0.662	0.2	0.5	0.3038	72	65	150	
Thallium (Tl)	23.5	1	25	0	94	70	130	



Alpha Analytical, Inc.

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Date:
12-Dec-07

QC Summary Report

Work Order:
07110654

Sample Matrix Spike Duplicate

File ID: 110807.B\A03MSD.D\

Sample ID: 07110729-01AMSD

Type MSD

Test Code: EPA Method SW6020

Batch ID: 18687

Analysis Date: 11/08/2007 22:54

Analyte	Result	PQL	Run ID: ICP/MS_071108A			LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
			SpkVal	SpkRefVal	%REC					
Beryllium (Be)	25.6	1	25	0	102	75	132	26.69	4.3(20)	
Chromium (Cr)	35.9	1	25	13	92	50	150	37.37	4.0(20)	
Manganese (Mn)	465	1	250	296.1	67	50	146	593	24.2(20)	R5
Iron (Fe)	26000	500	5000	22340	73	50	150	28470	9.0(20)	
Nickel (Ni)	31.6	2	25	8.494	92	50	149	32.98	4.3(20)	
Copper (Cu)	70.8	2	25	44.58	105	54	143	71.12	0.5(20)	
Zinc (Zn)	173	20	25	147.7	102	50	147	168.2	3.0(20)	
Arsenic (As)	26.7	1	25	3.139	94	60	130	26.05	2.6(20)	
Selenium (Se)	23.8	1	25	0	95	69	130	23.38	1.7(20)	
Silver (Ag)	26.2	1	25	2.793	94	62	132	26.28	0.3(20)	
Cadmium (Cd)	25.8	1	25	0	103	70	130	25.96	0.6(20)	
Antimony (Sb)	21.3	1	25	1.893	77	50	130	20.58	3.3(20)	
Mercury (Hg)	0.708	0.2	0.5	0.3038	81	65	150	0.6617	6.8(20)	
Thallium (Tl)	23.5	1	25	0	94	70	130	23.52	0.0(20)	

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

R5 = MS/MSD RPD exceed the laboratory control limit. Recovery met acceptance criteria.

CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

November 09, 2007

CLS Work Order #: CQK0151
COC #:

Reyna Vallejo
Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks, NV 89431

Project Name: GEI07110654

Enclosed are the results of analyses for samples received by the laboratory on 11/06/07 16:00. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,



James Liang, Ph.D.
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES

11/09/07 13:22

Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks NV, 89431

Project: GEI07110654
Project Number: GEI07110654
Project Manager: Reyna Vallejo

CLS Work Order #: CQK0151
COC #:

Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
GEI07110654-01A (TP-ENV-518) (CQK0151-01) Soil	Sampled: 11/05/07 14:15	Received: 11/06/07 16:00							
Cyanide (total)	ND	0.50	mg/kg	1	CQ09254	11/09/07	11/09/07	EPA 9010B	
GEI07110654-02A (TP-ENV-520) (CQK0151-02) Soil	Sampled: 11/05/07 15:20	Received: 11/06/07 16:00							
Cyanide (total)	ND	0.50	mg/kg	1	CQ09254	11/09/07	11/09/07	EPA 9010B	
GEI07110654-03A (TP-ENV-522) (CQK0151-03) Soil	Sampled: 11/05/07 16:05	Received: 11/06/07 16:00							
Cyanide (total)	ND	0.50	mg/kg	1	CQ09254	11/09/07	11/09/07	EPA 9010B	
GEI07110654-04A (TP-ENV-521) (CQK0151-04) Soil	Sampled: 11/05/07 18:50	Received: 11/06/07 16:00							
Cyanide (total)	ND	0.50	mg/kg	1	CQ09254	11/09/07	11/09/07	EPA 9010B	
GEI07110654-05A (TP-ENV-519) (CQK0151-05) Soil	Sampled: 11/06/07 07:50	Received: 11/06/07 16:00							
Cyanide (total)	ND	0.50	mg/kg	1	CQ09254	11/09/07	11/09/07	EPA 9010B	
GEI07110654-06A (TP-ENV-515) (CQK0151-06) Soil	Sampled: 11/06/07 09:00	Received: 11/06/07 16:00							
Cyanide (total)	ND	0.50	mg/kg	1	CQ09254	11/09/07	11/09/07	EPA 9010B	
GEI07110654-07A (TP-ENV-516) (CQK0151-07) Soil	Sampled: 11/06/07 09:40	Received: 11/06/07 16:00							
Cyanide (total)	ND	0.50	mg/kg	1	CQ09254	11/09/07	11/09/07	EPA 9010B	
GEI07110654-08A (TP-ENV-517) (CQK0151-08) Soil	Sampled: 11/06/07 10:35	Received: 11/06/07 16:00							
Cyanide (total)	ND	0.50	mg/kg	1	CQ09254	11/09/07	11/09/07	EPA 9010B	

CALIFORNIA LABORATORY SERVICES

11/09/07 13:22

Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks NV, 89431

Project: GEI07110654
Project Number: GEI07110654
Project Manager: Reyna Vallejo

CLS Work Order #: CQK0151
COC #:

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
GEI07110654-01A (TP-ENV-518) (CQK0151-01) Soil	Sampled: 11/05/07 14:15 Received: 11/06/07 16:00								QC-2H
Aldrin	ND	5.0	µg/kg	5	CQ09157	11/06/07	11/08/07	EPA 8081A	
alpha-BHC	ND	10	"	"	"	"	"	"	
beta-BHC	ND	50	"	"	"	"	"	"	
delta-BHC	ND	50	"	"	"	"	"	"	
gamma-BHC (Lindane)	ND	50	"	"	"	"	"	"	
Chlordane	ND	100	"	"	"	"	"	"	
4,4'-DDD	ND	75	"	"	"	"	"	"	
4,4'-DDE	ND	75	"	"	"	"	"	"	
4,4'-DDT	ND	75	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	75	"	"	"	"	"	"	
Endosulfan II	ND	75	"	"	"	"	"	"	
Endosulfan sulfate	ND	75	"	"	"	"	"	"	
Endrin	ND	75	"	"	"	"	"	"	
Endrin aldehyde	ND	75	"	"	"	"	"	"	
Heptachlor	ND	25	"	"	"	"	"	"	
Heptachlor epoxide	ND	10	"	"	"	"	"	"	
Methoxychlor	ND	75	"	"	"	"	"	"	
Mirex	ND	50	"	"	"	"	"	"	
Toxaphene	ND	100	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		109 %	46-139	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		106 %	52-141	"	"	"	"	"	

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
GEI07110654-02A (TP-ENV-520) (CQK0151-02) Soil	Sampled: 11/05/07 15:20 Received: 11/06/07 16:00								QC-2H
Aldrin	ND	5.0	µg/kg	5	CQ09157	11/06/07	11/08/07	EPA 8081A	
alpha-BHC	ND	10	"	"	"	"	"	"	
beta-BHC	ND	50	"	"	"	"	"	"	
delta-BHC	ND	50	"	"	"	"	"	"	
gamma-BHC (Lindane)	ND	50	"	"	"	"	"	"	
Chlordane	ND	100	"	"	"	"	"	"	
4,4'-DDD	ND	75	"	"	"	"	"	"	
4,4'-DDE	ND	75	"	"	"	"	"	"	
4,4'-DDT	ND	75	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	75	"	"	"	"	"	"	
Endosulfan II	ND	75	"	"	"	"	"	"	
Endosulfan sulfate	ND	75	"	"	"	"	"	"	
Endrin	ND	75	"	"	"	"	"	"	
Endrin aldehyde	ND	75	"	"	"	"	"	"	
Heptachlor	ND	25	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

11/09/07 13:22

Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks NV, 89431

Project: GEI07110654
Project Number: GEI07110654
Project Manager: Reyna Vallejo

CLS Work Order #: CQK0151
COC #:

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
GEI07110654-02A (TP-ENV-520) (CQK0151-02) Soil	Sampled: 11/05/07 15:20 Received: 11/06/07 16:00							QC-2H	
Heptachlor epoxide	ND	10	µg/kg	5	CQ09157	11/06/07	11/08/07	EPA 8081A	
Methoxychlor	ND	75	"	"	"	"	"	"	
Mirex	ND	50	"	"	"	"	"	"	
Toxaphene	ND	100	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		112 %	46-139	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		110 %	52-141	"	"	"	"	"	
GEI07110654-03A (TP-ENV-522) (CQK0151-03) Soil	Sampled: 11/05/07 16:05 Received: 11/06/07 16:00							QC-2H	
Aldrin	ND	5.0	µg/kg	5	CQ09157	11/06/07	11/08/07	EPA 8081A	
alpha-BHC	ND	10	"	"	"	"	"	"	
beta-BHC	ND	50	"	"	"	"	"	"	
delta-BHC	ND	50	"	"	"	"	"	"	
gamma-BHC (Lindane)	ND	50	"	"	"	"	"	"	
Chlordane	ND	100	"	"	"	"	"	"	
4,4'-DDD	ND	75	"	"	"	"	"	"	
4,4'-DDE	ND	75	"	"	"	"	"	"	
4,4'-DDT	ND	75	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	75	"	"	"	"	"	"	
Endosulfan II	ND	75	"	"	"	"	"	"	
Endosulfan sulfate	ND	75	"	"	"	"	"	"	
Endrin	ND	75	"	"	"	"	"	"	
Endrin aldehyde	ND	75	"	"	"	"	"	"	
Heptachlor	ND	25	"	"	"	"	"	"	
Heptachlor epoxide	ND	10	"	"	"	"	"	"	
Methoxychlor	ND	75	"	"	"	"	"	"	
Mirex	ND	50	"	"	"	"	"	"	
Toxaphene	ND	100	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		104 %	46-139	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		96.3 %	52-141	"	"	"	"	"	
GEI07110654-04A (TP-ENV-521) (CQK0151-04) Soil	Sampled: 11/05/07 18:50 Received: 11/06/07 16:00							QC-2H	
Aldrin	ND	5.0	µg/kg	5	CQ09157	11/06/07	11/08/07	EPA 8081A	
alpha-BHC	ND	10	"	"	"	"	"	"	
beta-BHC	ND	50	"	"	"	"	"	"	
delta-BHC	ND	50	"	"	"	"	"	"	
gamma-BHC (Lindane)	ND	50	"	"	"	"	"	"	
Chlordane	ND	100	"	"	"	"	"	"	
4,4'-DDD	ND	75	"	"	"	"	"	"	
4,4'-DDE	ND	75	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

11/09/07 13:22

Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks NV, 89431

Project: GEI07110654
Project Number: GEI07110654
Project Manager: Reyna Vallejo

CLS Work Order #: CQK0151
COC #:

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
GEI07110654-04A (TP-ENV-521) (CQK0151-04) Soil	Sampled: 11/05/07 18:50 Received: 11/06/07 16:00								QC-2H
4,4'-DDT	ND	75	µg/kg	5	CQ09157	11/06/07	11/08/07	EPA 8081A	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	75	"	"	"	"	"	"	
Endosulfan II	ND	75	"	"	"	"	"	"	
Endosulfan sulfate	ND	75	"	"	"	"	"	"	
Endrin	ND	75	"	"	"	"	"	"	
Endrin aldehyde	ND	75	"	"	"	"	"	"	
Heptachlor	ND	25	"	"	"	"	"	"	
Heptachlor epoxide	ND	10	"	"	"	"	"	"	
Methoxychlor	ND	75	"	"	"	"	"	"	
Mirex	ND	50	"	"	"	"	"	"	
Toxaphene	ND	100	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		117 %	46-139	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		115 %	52-141	"	"	"	"	"	
GEI07110654-05A (TP-ENV-519) (CQK0151-05) Soil	Sampled: 11/06/07 07:50 Received: 11/06/07 16:00								QC-2H
Aldrin	ND	5.0	µg/kg	5	CQ09157	11/06/07	11/08/07	EPA 8081A	
alpha-BHC	ND	10	"	"	"	"	"	"	
beta-BHC	ND	50	"	"	"	"	"	"	
delta-BHC	ND	50	"	"	"	"	"	"	
gamma-BHC (Lindane)	ND	50	"	"	"	"	"	"	
Chlordane	ND	100	"	"	"	"	"	"	
4,4'-DDD	ND	75	"	"	"	"	"	"	
4,4'-DDE	ND	75	"	"	"	"	"	"	
4,4'-DDT	ND	75	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	75	"	"	"	"	"	"	
Endosulfan II	ND	75	"	"	"	"	"	"	
Endosulfan sulfate	ND	75	"	"	"	"	"	"	
Endrin	ND	75	"	"	"	"	"	"	
Endrin aldehyde	ND	75	"	"	"	"	"	"	
Heptachlor	ND	25	"	"	"	"	"	"	
Heptachlor epoxide	ND	10	"	"	"	"	"	"	
Methoxychlor	ND	75	"	"	"	"	"	"	
Mirex	ND	50	"	"	"	"	"	"	
Toxaphene	ND	100	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		125 %	46-139	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		115 %	52-141	"	"	"	"	"	
GEI07110654-06A (TP-ENV-515) (CQK0151-06) Soil	Sampled: 11/06/07 09:00 Received: 11/06/07 16:00								QC-2H

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CALIFORNIA LABORATORY SERVICES

11/09/07 13:22

Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks NV, 89431

Project: GEI07110654
Project Number: GEI07110654
Project Manager: Reyna Vallejo

CLS Work Order #: CQK0151
COC #:

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
GEI07110654-06A (TP-ENV-515) (CQK0151-06) Soil									QC-2H
Aldrin	ND	5.0	µg/kg	5	CQ09157	11/06/07	11/08/07	EPA 8081A	
alpha-BHC	ND	10	"	"	"	"	"	"	
beta-BHC	ND	50	"	"	"	"	"	"	
delta-BHC	ND	50	"	"	"	"	"	"	
gamma-BHC (Lindane)	ND	50	"	"	"	"	"	"	
Chlordane	ND	100	"	"	"	"	"	"	
4,4'-DDD	ND	75	"	"	"	"	"	"	
4,4'-DDE	ND	75	"	"	"	"	"	"	
4,4'-DDT	ND	75	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	75	"	"	"	"	"	"	
Endosulfan II	ND	75	"	"	"	"	"	"	
Endosulfan sulfate	ND	75	"	"	"	"	"	"	
Endrin	ND	75	"	"	"	"	"	"	
Endrin aldehyde	ND	75	"	"	"	"	"	"	
Heptachlor	ND	25	"	"	"	"	"	"	
Heptachlor epoxide	ND	10	"	"	"	"	"	"	
Methoxychlor	ND	75	"	"	"	"	"	"	
Mirex	ND	50	"	"	"	"	"	"	
Toxaphene	ND	100	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		145 %		46-139	"	"	"	"	QS-HI
Surrogate: Decachlorobiphenyl		137 %		52-141	"	"	"	"	

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
GEI07110654-07A (TP-ENV-516) (CQK0151-07) Soil									QC-2H
Aldrin	ND	5.0	µg/kg	5	CQ09157	11/06/07	11/08/07	EPA 8081A	
alpha-BHC	ND	10	"	"	"	"	"	"	
beta-BHC	ND	50	"	"	"	"	"	"	
delta-BHC	ND	50	"	"	"	"	"	"	
gamma-BHC (Lindane)	ND	50	"	"	"	"	"	"	
Chlordane	ND	100	"	"	"	"	"	"	
4,4'-DDD	ND	75	"	"	"	"	"	"	
4,4'-DDE	ND	75	"	"	"	"	"	"	
4,4'-DDT	ND	75	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	75	"	"	"	"	"	"	
Endosulfan II	ND	75	"	"	"	"	"	"	
Endosulfan sulfate	ND	75	"	"	"	"	"	"	
Endrin	ND	75	"	"	"	"	"	"	
Endrin aldehyde	ND	75	"	"	"	"	"	"	
Heptachlor	ND	25	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

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Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks NV, 89431

Project: GEI07110654
Project Number: GEI07110654
Project Manager: Reyna Vallejo

CLS Work Order #: CQK0151
COC #:

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
GEI07110654-07A (TP-ENV-516) (CQK0151-07) Soil	Sampled: 11/06/07 09:40 Received: 11/06/07 16:00								QC-2H
Heptachlor epoxide	ND	10	µg/kg	5	CQ09157	11/06/07	11/08/07	EPA 8081A	
Methoxychlor	ND	75	"	"	"	"	"	"	
Mirex	ND	50	"	"	"	"	"	"	
Toxaphene	ND	100	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		120 %	46-139	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		126 %	52-141	"	"	"	"	"	
GEI07110654-08A (TP-ENV-517) (CQK0151-08) Soil	Sampled: 11/06/07 10:35 Received: 11/06/07 16:00								QC-2H
Aldrin	ND	5.0	µg/kg	5	CQ09157	11/06/07	11/08/07	EPA 8081A	
alpha-BHC	ND	10	"	"	"	"	"	"	
beta-BHC	ND	50	"	"	"	"	"	"	
delta-BHC	ND	50	"	"	"	"	"	"	
gamma-BHC (Lindane)	ND	50	"	"	"	"	"	"	
Chlordane	ND	100	"	"	"	"	"	"	
4,4'-DDD	ND	75	"	"	"	"	"	"	
4,4'-DDE	ND	75	"	"	"	"	"	"	
4,4'-DDT	ND	75	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	75	"	"	"	"	"	"	
Endosulfan II	ND	75	"	"	"	"	"	"	
Endosulfan sulfate	ND	75	"	"	"	"	"	"	
Endrin	ND	75	"	"	"	"	"	"	
Endrin aldehyde	ND	75	"	"	"	"	"	"	
Heptachlor	ND	25	"	"	"	"	"	"	
Heptachlor epoxide	ND	10	"	"	"	"	"	"	
Methoxychlor	ND	75	"	"	"	"	"	"	
Mirex	ND	50	"	"	"	"	"	"	
Toxaphene	ND	100	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		122 %	46-139	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		115 %	52-141	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

11/09/07 13:22

Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks NV, 89431

Project: GEI07110654
Project Number: GEI07110654
Project Manager: Reyna Vallejo

CLS Work Order #: CQK0151
COC #:

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
GEI07110654-01A (TP-ENV-518) (CQK0151-01) Soil	Sampled: 11/05/07 14:15 Received: 11/06/07 16:00								
Aroclor 1016	ND	20	µg/kg	1	CQ09144	11/06/07	11/07/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
<i>Surrogate: Decachlorobiphenyl</i>		77.9 %	50-150		"	"	"	"	
GEI07110654-02A (TP-ENV-520) (CQK0151-02) Soil	Sampled: 11/05/07 15:20 Received: 11/06/07 16:00								
Aroclor 1016	ND	20	µg/kg	1	CQ09144	11/06/07	11/07/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
<i>Surrogate: Decachlorobiphenyl</i>		77.4 %	50-150		"	"	"	"	
GEI07110654-03A (TP-ENV-522) (CQK0151-03) Soil	Sampled: 11/05/07 16:05 Received: 11/06/07 16:00								
Aroclor 1016	ND	20	µg/kg	1	CQ09144	11/06/07	11/07/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
<i>Surrogate: Decachlorobiphenyl</i>		88.8 %	50-150		"	"	"	"	
GEI07110654-04A (TP-ENV-521) (CQK0151-04) Soil	Sampled: 11/05/07 18:50 Received: 11/06/07 16:00								
Aroclor 1016	ND	20	µg/kg	1	CQ09144	11/06/07	11/07/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
<i>Surrogate: Decachlorobiphenyl</i>		86.4 %	50-150		"	"	"	"	
GEI07110654-05A (TP-ENV-519) (CQK0151-05) Soil	Sampled: 11/06/07 07:50 Received: 11/06/07 16:00								

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CALIFORNIA LABORATORY SERVICES

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Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks NV, 89431

Project: GEI07110654
Project Number: GEI07110654
Project Manager: Reyna Vallejo

CLS Work Order #: CQK0151
COC #:

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
GEI07110654-05A (TP-ENV-519) (CQK0151-05) Soil Sampled: 11/06/07 07:50 Received: 11/06/07 16:00									
Aroclor 1016	ND	20	µg/kg	1	CQ09144	11/06/07	11/07/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
<i>Surrogate: Decachlorobiphenyl</i>		75.5 %	50-150	"	"	"	"	"	
GEI07110654-06A (TP-ENV-515) (CQK0151-06) Soil Sampled: 11/06/07 09:00 Received: 11/06/07 16:00									
Aroclor 1016	ND	20	µg/kg	1	CQ09144	11/06/07	11/07/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
<i>Surrogate: Decachlorobiphenyl</i>		75.0 %	50-150	"	"	"	"	"	
GEI07110654-07A (TP-ENV-516) (CQK0151-07) Soil Sampled: 11/06/07 09:40 Received: 11/06/07 16:00									
Aroclor 1016	ND	20	µg/kg	1	CQ09144	11/06/07	11/07/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
<i>Surrogate: Decachlorobiphenyl</i>		87.2 %	50-150	"	"	"	"	"	
GEI07110654-08A (TP-ENV-517) (CQK0151-08) Soil Sampled: 11/06/07 10:35 Received: 11/06/07 16:00									
Aroclor 1016	ND	20	µg/kg	1	CQ09144	11/06/07	11/07/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
<i>Surrogate: Decachlorobiphenyl</i>		90.4 %	50-150	"	"	"	"	"	

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CALIFORNIA LABORATORY SERVICES

11/09/07 13:22

Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks NV, 89431

Project: GEI07110654
Project Number: GEI07110654
Project Manager: Reyna Vallejo

CLS Work Order #: CQK0151
COC #:

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch CQ09254 - General Preparation

Blank (CQ09254-BLK1)										Prepared & Analyzed: 11/09/07
Cyanide (total)	ND	0.50	mg/kg							
LCS (CQ09254-BS1)										Prepared & Analyzed: 11/09/07
Cyanide (total)	4.16	0.50	mg/kg	5.00		83.3	75-125			
LCS Dup (CQ09254-BSD1)										Prepared & Analyzed: 11/09/07
Cyanide (total)	4.09	0.50	mg/kg	5.00		81.8	75-125	1.82	25	
Matrix Spike (CQ09254-MS1)		Source: CQK0151-01								Prepared & Analyzed: 11/09/07
Cyanide (total)	2.70	0.50	mg/kg	5.00	ND	54.0	75-125			QM-5
Matrix Spike Dup (CQ09254-MSD1)		Source: CQK0151-01								Prepared & Analyzed: 11/09/07
Cyanide (total)	2.90	0.50	mg/kg	5.00	ND	58.0	75-125	7.14	25	QM-5

CALIFORNIA LABORATORY SERVICES

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Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks NV, 89431

Project: GEI07110654
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Project Manager: Reyna Vallejo

CLS Work Order #: CQK0151
COC #:

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch CQ09157 - LUFT-DHS GCNV

Blank (CQ09157-BLK1)

Prepared: 11/06/07 Analyzed: 11/08/07

Aldrin	ND	1.0	µg/kg							
alpha-BHC	ND	2.0	"							
beta-BHC	ND	10	"							
delta-BHC	ND	10	"							
gamma-BHC (Lindane)	ND	10	"							
Chlordane	ND	20	"							
4,4'-DDD	ND	15	"							
4,4'-DDE	ND	15	"							
4,4'-DDT	ND	15	"							
Dieldrin	ND	1.0	"							
Endosulfan I	ND	15	"							
Endosulfan II	ND	15	"							
Endosulfan sulfate	ND	15	"							
Endrin	ND	15	"							
Endrin aldehyde	ND	15	"							
Heptachlor	ND	5.0	"							
Heptachlor epoxide	ND	2.0	"							
Methoxychlor	ND	15	"							
Mirex	ND	10	"							
Toxaphene	ND	20	"							
<i>Surrogate: Tetrachloro-meta-xylene</i>	7.28		"	8.33		87.3	46-139			
<i>Surrogate: Decachlorobiphenyl</i>	8.96		"	8.33		108	52-141			

LCS (CQ09157-BS1)

Prepared: 11/06/07 Analyzed: 11/08/07

Aldrin	12.8	1.0	µg/kg	16.7	76.9	47-132
gamma-BHC (Lindane)	12.4	10	"	16.7	74.5	56-133
4,4'-DDT	16.7	15	"	16.7	100	46-137
Dieldrin	14.4	1.0	"	16.7	86.2	44-143
Endrin	14.9	15	"	16.7	89.4	30-147
Heptachlor	13.1	5.0	"	16.7	78.6	33-148
<i>Surrogate: Tetrachloro-meta-xylene</i>	5.25		"	8.33	63.0	46-139
<i>Surrogate: Decachlorobiphenyl</i>	6.98		"	8.33	83.7	52-141

CALIFORNIA LABORATORY SERVICES

11/09/07 13:22

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255 Glendale Ave.; Suite 21
Sparks NV, 89431

Project: GEI07110654
Project Number: GEI07110654
Project Manager: Reyna Vallejo

CLS Work Order #: CQK0151
COC #:

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch CQ09157 - LUFT-DHS GCNV

LCS Dup (CQ09157-BSD1)				Prepared: 11/06/07		Analyzed: 11/08/07				
Aldrin	12.7	1.0	µg/kg	16.7		76.3	47-132	0.725	30	
gamma-BHC (Lindane)	12.2	10	"	16.7		73.2	56-133	1.70	30	
4,4'-DDT	16.4	15	"	16.7		98.6	46-137	1.45	30	
Dieldrin	14.2	1.0	"	16.7		85.5	44-143	0.892	30	
Endrin	14.6	15	"	16.7		87.8	30-147	1.73	30	
Heptachlor	12.9	5.0	"	16.7		77.2	33-148	1.83	30	
<i>Surrogate: Tetrachloro-meta-xylene</i>	5.00		"	8.33		59.9	46-139			
<i>Surrogate: Decachlorobiphenyl</i>	6.59		"	8.33		79.1	52-141			
Matrix Spike (CQ09157-MS1)		Source: CQK0080-01		Prepared: 11/06/07		Analyzed: 11/08/07				
Aldrin	15.5	5.0	µg/kg	16.7	ND	93.3	47-138			
gamma-BHC (Lindane)	12.9	50	"	16.7	ND	77.4	38-144			
4,4'-DDT	19.9	75	"	16.7	ND	119	41-157			
Dieldrin	17.2	5.0	"	16.7	ND	103	46-155			
Endrin	16.8	75	"	16.7	ND	101	34-149			
Heptachlor	15.1	25	"	16.7	ND	90.5	36-155			
<i>Surrogate: Tetrachloro-meta-xylene</i>	18.2		"	20.8		87.3	46-139			
<i>Surrogate: Decachlorobiphenyl</i>	20.5		"	20.8		98.6	52-141			
Matrix Spike Dup (CQ09157-MSD1)		Source: CQK0080-01		Prepared: 11/06/07		Analyzed: 11/08/07				
Aldrin	16.8	5.0	µg/kg	16.7	ND	101	47-138	7.57	35	
gamma-BHC (Lindane)	14.9	50	"	16.7	ND	89.1	38-144	14.1	35	
4,4'-DDT	19.8	75	"	16.7	ND	119	41-157	0.635	35	
Dieldrin	17.7	5.0	"	16.7	ND	106	46-155	3.36	35	
Endrin	16.9	75	"	16.7	ND	102	34-149	0.954	35	
Heptachlor	16.9	25	"	16.7	ND	101	36-155	11.3	35	
<i>Surrogate: Tetrachloro-meta-xylene</i>	23.3		"	20.8		112	46-139			
<i>Surrogate: Decachlorobiphenyl</i>	24.4		"	20.8		117	52-141			

CALIFORNIA LABORATORY SERVICES

11/09/07 13:22

Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks NV, 89431

Project: GEI07110654
Project Number: GEI07110654
Project Manager: Reyna Vallejo

CLS Work Order #: CQK0151
COC #:

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch CQ09144 - LUFT-DHS GCNV

Blank (CQ09144-BLK1)	Prepared & Analyzed: 11/06/07						
Aroclor 1016	ND	20	µg/kg				
Aroclor 1221	ND	20	"				
Aroclor 1232	ND	20	"				
Aroclor 1242	ND	20	"				
Aroclor 1248	ND	20	"				
Aroclor 1254	ND	20	"				
Aroclor 1260	ND	20	"				
<i>Surrogate: Decachlorobiphenyl</i>	7.05	"		8.33		84.6	50-150

LCS (CQ09144-BS1)	Prepared & Analyzed: 11/06/07						
Aroclor 1260	79.5	20	µg/kg	83.3		95.4	29-131
<i>Surrogate: Decachlorobiphenyl</i>	8.02	"		8.33		96.2	50-150

LCS Dup (CQ09144-BSD1)	Prepared & Analyzed: 11/06/07						
Aroclor 1260	78.5	20	µg/kg	83.3		94.2	29-131
<i>Surrogate: Decachlorobiphenyl</i>	7.37	"		8.33		88.4	50-150

Matrix Spike (CQ09144-MS1)	Source: CQK0080-02	Prepared & Analyzed: 11/06/07						
Aroclor 1260	79.0	20	µg/kg	83.3	ND	94.8	29-131	
<i>Surrogate: Decachlorobiphenyl</i>	7.85	"		8.33		94.2	50-150	

Matrix Spike Dup (CQ09144-MSD1)	Source: CQK0080-02	Prepared & Analyzed: 11/06/07						
Aroclor 1260	78.9	20	µg/kg	83.3	ND	94.6	29-131	
<i>Surrogate: Decachlorobiphenyl</i>	8.12	"		8.33		97.4	50-150	

CALIFORNIA LABORATORY SERVICES

11/09/07 13:22

Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks NV, 89431

Project: GEI07110654
Project Number: GEI07110654
Project Manager: Reyna Vallejo

CLS Work Order #: CQK0151

COC #:

Notes and Definitions

QS-HI	Surrogate recovery was greater than the upper control limit. A reanalysis was not performed since the analytes associated with the surrogate were not detected.
QM-5	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
QC-2H	The recovery of one CCV was greater than the acceptance limit. However, all analytes in the associated samples were ND; therefore a reanalysis was not performed.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Billing Information :

CHAIN-OF-CUSTODY RECORD

AMENDMENT
Page: 1 of 1

Alpha Analytical, Inc.

255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778

TEL: (775) 355-1044 FAX: (775) 355-0406

Report Attention Phone Number EMail Address

Andrew Adinolfi (916) 631-4500 x adinolfi@geiconsultants.com

GEI Consultants
10860 Gold Center Dr. Ste. 350

Rancho Cordova, CA 95670

PO : Client's COC # : 17807 Job : 050115/TRLIA

QC Level : 1 = Final Rpt Only

Requested Tests

Alpha Sample ID	Client Sample ID	Collection Matrix	No. of Bottles Alpha	Sub TAT	8081_S			8082_S			CYANIDE_T METALS_S O			Remarks						
					11/05/07	14:15	1	1	10	PEST	PCB	Cyanide	Spec. list	11/06/07	09:40	10:35	PEST	PCB	Cyanide	Spec. list
GEI07110654-01A	TP-ENV-5118	SO	11/05/07																	8081, 8082 and Total Cyanide subbed to CLS.
GEI07110654-02A	TP-ENV-5220	SO	11/05/07	1	1	10	PEST	PCB	Cyanide	Spec. list										8081, 8082 and Total Cyanide subbed to CLS.
GEI07110654-03A	TP-ENV-522	SO	11/05/07	1	1	10	PEST	PCB	Cyanide	Spec. list										8081, 8082 and Total Cyanide subbed to CLS.
GEI07110654-04A	TP-ENV-521	SO	11/05/07	1	1	10	PEST	PCB	Cyanide	Spec. list										8081, 8082 and Total Cyanide subbed to CLS.
GEI07110654-05A	TP-ENV-519	SO	11/06/07	1	1	10	PEST	PCB	Cyanide	Spec. list										8081, 8082 and Total Cyanide subbed to CLS.
GEI07110654-06A	TP-ENV-515	SO	11/06/07	1	1	10	PEST	PCB	Cyanide	Spec. list										8081, 8082 and Total Cyanide subbed to CLS.
GEI07110654-07A	TP-ENV-516	SO	11/06/07	1	1	10	PEST	PCB	Cyanide	Spec. list										8081, 8082 and Total Cyanide subbed to CLS.
GEI07110654-08A	TP-ENV-517	SO	11/06/07	1	1	10	PEST	PCB	Cyanide	Spec. list										8081, 8082 and Total Cyanide subbed to CLS.

Comments: Samples prelogged in order for Sac office to sub 8081, 8082 and Total Cyanide to CLS. Security seals intact. Frozen ice. Amended 12/11/07 @ 14:40 to add Hg to Metals list, per Andrew L.E.:

Logged in by:	Signature	Print Name	Company	Date/Time
<i>Patricia Edwards</i>	<i>Patricia Edwards</i>	<i>Patricia Edwards</i>	<i>Alpha Analytical, Inc.</i>	<i>12/11/07 14:40</i>

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.
The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.
Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-VoA S-Soil Jar O-Orbo T-Tediar B-Brass P-Plastic OT-Other

CHAIN-OF-CUSTODY RECORD

CA

Alpha Analytical, Inc.

255 Glendale Avenue, Suite 211 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406WorkOrder : GEIC07110654
Report Due By : 5:00 PM On : 21-Nov-07Client:
GEI Consultants
10860 Gold Center Dr. Ste. 350

Rancho Cordova, CA 95670

PO:
Client's COC # : 17807
QC Level : 1 = Final Rpt OnlyReport Attention Phone Number Email Address
Andrew Adinolfi (916) 631-4500 x adinolfi@geiconsultants.com

EDD Required : No

Sampled by : Client

Cooler Temp Samples Received Date Printed

4 °C 06-Nov-07 07-Nov-07

Requested Tests

Alpha Sample ID	Client Sample ID	Collection Matrix Date	No. of Bottles Alpha Sub	TAT	8081_S	8082_S	CYANIDE_TOTAL	METALS_S	Sample Remarks
GEI07110654-01A	TP-ENV-518	SO 11/05/07 14:15	1 1	10 PEST	PCB	Cyanide	Spec. list:		8081, 8082 and Total Cyanide subbed to CLS.
GEI07110654-02A	TP-ENV-520	SO 11/05/07 15:20	1 1	10 PEST	PCB	Cyanide	Spec. list:		8081, 8082 and Total Cyanide subbed to CLS.
GEI07110654-03A	TP-ENV-522	SO 11/05/07 16:05	1 1	10 PEST	PCB	Cyanide	Spec. list:		8081, 8082 and Total Cyanide subbed to CLS.
GEI07110654-04A	TP-ENV-521	SO 11/05/07 16:50	1 1	10 PEST	PCB	Cyanide	Spec. list:		8081, 8082 and Total Cyanide subbed to CLS.
GEI07110654-05A	TP-ENV-519	SO 11/06/07 07:50	1 1	10 PEST	PCB	Cyanide	Spec. list:		8081, 8082 and Total Cyanide subbed to CLS.
GEI07110654-06A	TP-ENV-515	SO 11/06/07 09:00	1 1	10 PEST	PCB	Cyanide	Spec. list:		8081, 8082 and Total Cyanide subbed to CLS.
GEI07110654-07A	TP-ENV-516	SO 11/06/07 09:40	1 1	10 PEST	PCB	Cyanide	Spec. list:		8081, 8082 and Total Cyanide subbed to CLS.
GEI07110654-08A	TP-ENV-517	SO 11/06/07 10:35	1 1	10 PEST	PCB	Cyanide	Spec. list:		8081, 8082 and Total Cyanide subbed to CLS.

Comments: Samples prelogged in order for Sac office to sub 8081, 8082 and Total Cyanide to CLS. Security seals intact. Frozen ice..

Comments:

Logged in by: 
Print Name: Michael J. Witten
Signature: Date/Time: 11/17/07 09:21
Company: Alpha Analytical, Inc.NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.
The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.
Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-VoA S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information:

GEI CONSULTANTS, INC.

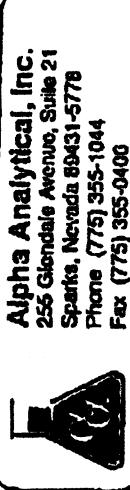
Name _____

Address _____

City, State, Zip _____

Phone Number _____

Fax _____

**17807**Samples Collected From Which State?
AZ CA NV WA
ID OR OTHER

Analyses Required	
-------------------	--

Client Name	PO #	Job #	050415	Required QC Levels?			
				I	H	M	IV
TRIA							
Address							
City, State, Zip							
Sampled by							
Date							
Sampled by							
Lab ID Number							
Report Address							
Total and type of containers "See below"							
Sample Description							
TAT							
Remarks							
TP-ENV-S18							
TP-ENV-S10							
TP-ENV-S22							
TP-ENV-S21							
TP-ENV-S19							
TP-ENV-S15							
TP-ENV-S16							
TP-ENV-S17							

ADDITIONAL INSTRUCTIONS:

Received by	Print Name	Company	Date	Time
Garrett Hart	GEI Consultants		11-6-07	1515
Lisa deSilva	ALPHA		11-6-07	1515
John McMenamin	John McMenamin	Alpha	11-7-07	920
Received by				
Printed by				
Received by				
Printed by				
Received by				
Printed by				

Key: AQ - Aqueous SO - Soil WA - Waste OT - Other AR - Air " - L-Liter V-Vials S-Sol.Jar O-Onbo T-Tefler B-Brass P-Plastic OT-Other

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this form. The liability of the laboratory is limited to the amount charged for the analysis.

**Three Rivers Levee Improvement Authority
Feather River Setback Levee Project
Planned Resolution - Phase 1 Environmental Site Assessment Recommendations (Note 1)**

RECOGNIZED ENVIRONMENTAL CONDITIONS

Findings	Recommendations	Trlia Planned Resolution
<p>1. Site-wide: The application of pesticides (including insecticides, herbicides, and fungicides) containing hazardous substances is considered a recognized environmental condition under the ASTM Standard. However, permitted use of such pesticides is exempt from state and federal reporting as releases of hazardous substances to the environment. It is presumed that DDT detected in the potential Eastern Borrow Area was applied legally (before being banned), and therefore is not considered reportable under the California Health and Safety Code.</p>	<p>Recommendation: Testing for persistent pesticides is warranted for potential borrow material to evaluate its suitability for levee construction, because the material could potentially be exposed to the expanded floodway.</p>	<p>TRLIA has performed soil sampling and chemical testing for potential borrow areas in general conformance with the requirements for a Phase 2 Site Assessment per ASTM E1903. A memorandum was prepared and included in the January 2008 Geotechnical Data Report, Volume 5, Appendix F8). The study concluded that the chemical constituents evaluated were at non-detect or below local natural occurring levels, and therefore material from the borrow areas is environmentally suitable for use as borrow for the setback levee.</p> <p><i>Completed.</i></p>
<p>2. Site-wide: The presence of agricultural burn areas and debris areas described in Section 5.2.4 is considered a recognized environmental condition under the ASTM Standard. Several burn areas and debris areas were identified at the Site, many of them containing metal debris in addition to ash. The presence of hazardous substances from strictly agricultural burning is exempt from reporting as a release under state and federal regulations because agricultural burning is permitted at the Site. The presence of hazardous substances in burn areas where non-agricultural material is observed could potentially represent a reportable release, because the burning of such material is not permitted. Burn areas containing debris may represent a release if hazardous substances are present above reportable quantities specified in California Health and Safety Code section 25359.4.</p>	<p>Recommendation: Mixing or tilling ash and wood from agricultural burning (with no evidence of other materials) into existing topsoil, in setback area or areas of required project excavation. This is standard agricultural practice and can be accomplished by simultaneous removal of ash with topsoil as proposed for site redevelopment. However, ash material associated with debris piles should be segregated and removed from the Site as described below.</p>	<p>TRLIA's construction contractor will till ash from agricultural burning into the topsoil per the recommendations.</p> <p>See General Recommendations below for non-agricultural burning debris piles.</p>

RECOGNIZED ENVIRONMENTAL CONDITIONS

Findings	Recommendations	Trlia Planned Resolution
<p>3. Site-wide: The potential presence of mercury due to its known historic use regionally for gold mining represents a recognized environmental condition at the Site. Residual mercury concentrations may exist at site-wide or regional background levels that would not affect the proposed use of the Site.</p>	<p>Recommendation: Testing for mercury is not warranted because there is no evidence of a discrete ongoing source of contamination, localized depositions, or adverse conditions that may be caused by mercury due to localized depositions such as spills. Residual mercury and pesticide concentrations may exist at site-wide or regional background levels that would not affect the proposed use of the Site.</p>	<p>No action required. Testing for mercury was included in the borrow area pesticide investigation (see Item 1 above). Mercury was not detected at levels that would affect the proposed use of the Site.</p>
<p>4. Petroleum Storage/Apparent Petroleum-Stained Soil:</p> <p><u>707 Ella Avenue.</u> Two aboveground diesel tanks of approximately 1,000-gallon capacity are located on this property. A small area of stained soil was observed beneath the northerly tank.</p>	<p>Recommendation: The tank location is immediately adjacent to the Site. If this area is disturbed for levee improvements, we recommend proper removal and disposal of the tanks and stained soil, and screening of soil in the area for the potential presence of residual petroleum contamination.</p>	<p>The area is outside of the current project boundary. No action required.</p>
<p><u>798 Plumas Avenue, Pearson property.</u> An aboveground tank, oil/grease storage drums, and pails are located adjacent to the garage on the property. Soil in the area of the garage was stained.</p>	<p>Recommendation: If this area is disturbed for levee improvements, we recommend proper removal and disposal of the garage, tanks, and stained soil, and screening of soil in the area for the potential presence of residual petroleum contamination.</p>	<p>The area is outside of the current project boundary. No action required.</p>

RECOGNIZED ENVIRONMENTAL CONDITIONS

Findings	Recommendations	Trlia Planned Resolution
<p><u>3792 Feather River Boulevard (Naumes).</u> An approximately 3 by 3-foot area of dark staining on the Naumes property was observed adjacent to an irrigation wellhead near the eastern Site boundary east of approximate levee Station 475+00. An open 5-gallon pail half-filled with apparent pump oil was observed adjacent to the wellhead.</p>	<p>Recommendation: If this area is to be disturbed for levee improvements, we recommend proper removal and disposal of contained materials, and screening soil in the area for the potential presence of residual petroleum contamination.</p>	<p>TRLIA's construction contractor will remove the stained soil for offsite disposal. Upon completion of excavation, TRLIA inspectors will perform soil screening to confirm petroleum staining was limited to the surface. If there is evidence of additional contamination (e.g. stained soils, petroleum odors, etc), TRLIA will conduct environmental sampling and testing of soil samples. If concentrations of contaminants exceed allowable levels, TRLIA will perform remedial activities.</p>
<p><u>3792 Feather River Boulevard (Naumes).</u> Approximately 10 drums were observed on the Naumes property within a debris area near the eastern Site boundary, 1,000 feet west of approximate setback levee Station 180+00. Labeling indicates oil and agricultural product. No staining or evidence of leakage was apparent. Due to the threat of release posed by storage in an apparently uncontrolled area, the presence of these drums is considered a recognized environmental condition.</p>	<p>Recommendation: If this area is disturbed for levee improvements, we recommend proper removal and disposal of the tanks and stained soil, and screening soil in the area for the potential presence of residual petroleum contamination.</p>	<p>TRLIA's construction contractor will remove the drums for offsite disposal. Upon removal of drums, TRLIA inspectors will perform soil screening to assess soil conditions beneath the storage area. If there is evidence of contamination (e.g. stained soils, petroleum odors, etc), TRLIA will conduct environmental sampling and testing of soil samples. If concentrations of contaminants exceed allowable levels, TRLIA will perform remedial activities.</p>
<p><u>Waterside of levee, SSJDD property, bottom of levee access ramp opposite Ella Rd.</u> (STA 480+00). Two empty drums containing apparent grease residue and stained soil were observed within and adjacent to a levee access ramp.</p>	<p>Recommendation: If this area is disturbed for levee improvements, we recommend proper removal and disposal of the drums and stained soil.</p>	<p>The area is outside of the project boundary. No action required.</p>

POTENTIAL RECOGNIZED ENVIRONMENTAL CONDITIONS

Findings	Recommendations	Trlia Planned Resolution
<p><u>2018 Feather River Boulevard, Flores Property.</u> An unknown number of USTs were located on this property and removed sometime after 1988, according to EHD records. No other information was available, including whether indication of leakage was observed. A recognized environmental condition may exist.</p>	<p>Recommendation: If this area is disturbed for levee improvements, we recommend investigating for the potential presence of a buried tank, and screening of soil in the area for the potential presence of residual petroleum contamination.</p>	<p>TRLIA will conduct a Phase 2 investigation of the former UST site, consisting of excavation of test pits and field classification of soils encountered in the test pits. If there is evidence of contamination (e.g. stained soils, petroleum odors, etc), TRLIA will conduct environmental sampling and testing of soil samples. If concentrations of contaminants exceed allowable levels, TRLIA will perform remedial activities.</p>
<p><u>712 Murphy Road, Danna and Danna, Inc.</u> A UST located at the former dairy farm at this address was removed around 1990. The condition of the tank and surrounding soil is not known.</p>	<p>Recommendation: If this area is disturbed for levee improvements, we recommend screening of soil in the area for the potential presence of residual petroleum contamination.</p>	<p>TRLIA will conduct a Phase 2 investigation of the former UST site, consisting of excavation of test pits and field classification of soils encountered in the test pits. If there is evidence of contamination (e.g. stained soils, petroleum odors, etc), TRLIA will conduct environmental sampling and testing of soil samples. If concentrations of contaminants exceed allowable levels, TRLIA will perform remedial activities.</p>

POTENTIAL RECOGNIZED ENVIRONMENTAL CONDITIONS

Findings	Recommendations	Trlia Planned Resolution
<p><u>Underground Storage Tank, 794 Broadway St. (Hundal).</u> An unused UST is located adjacent to the garage on the property, on-Site within the potential eastern borrow area. Mr. Jesse Hundal reported there was no indication of leakage during its use.</p>	<p>Recommendation: If this area is to be purchased or excavated for levee improvements, a permit for removal or for temporary closure of the UST must be obtained from Yuba County (no such permits were found on file). The permits will likely require a subsurface investigation. If this property is to be excavated but not in the area of the tanks, we recommend screening soil excavated from within 100 feet of the tank for petroleum.</p>	<p>The area is outside of the current project boundary. No action required.</p>
<p><u>Underground Storage Tank, 2267 Feather River Boulevard (Nieshulz property).</u> A 1,000 gallon UST was installed just to the south of the maintenance shed around 1999. Because the tank was recently installed, it is unlikely that leakage has occurred.</p>	<p>Recommendation: If this area is to be purchased or excavated for levee improvements, a permit for removal or for temporary closure of the UST must be obtained from Yuba County (no such permits were found on file). The permits will likely require a subsurface investigation. If this property is to be excavated but not in the area of the tank, we recommend screening soil excavated from areas closest to the tank for petroleum.</p>	<p>The area is outside of the current project boundary. No action required.</p>
<p><u>Potential Underground Storage Tank, 798 Plumas Ave. (Pearson property).</u> UST listed in database at this address; however, owner and local records indicate no UST. The records likely refer to AGTs. Two AGTs were observed on the property within the potential eastern borrow area, and county records show two 500-gallon gasoline and diesel tanks.</p>	<p>Recommendation: If excavated or garage is demolished, monitor garage area for evidence of potential UST.</p>	<p>The area is outside of the current project boundary. No action required.</p>

GENERAL RECOMMENDATIONS

General Recommendation	Trlia Planned Resolution
<p>Removal of non-agricultural debris piles in setback area or areas of required project excavation, and disposal of the material at an offsite landfill. Removal of ash associated with debris piles in areas of required project excavation is also recommended. The ash and associated soil will likely be acceptable at a Class II landfill; however, analytical testing of soil will be required to fulfill landfill permit requirements and confirm that the material is not a Resource Conservation and Recovery Act (RCRA)-hazardous waste. We recommend analytical testing of soil beneath potentially hazardous debris including automotive debris or containers, after removal of the debris or containers, to confirm the condition of soil excavated or left in place and evaluate whether a reportable release exists.</p>	<p>TRLIA's construction contractor will remove and dispose offsite of all debris piles impacted by construction or in the setback area. Upon completion of debris removal, TRLIA inspectors will screen the underlying soil for contamination. If contaminated soil is encountered TRLIA will remove the contaminated soil and perform additional soil screening.</p>
<p>Clearing site structures of containers and AGTs containing petroleum or hazardous materials. We recommend analytical testing of soil beneath any AGTs or drums in setback area or areas of required project excavation, to confirm the condition of soil excavated or left in place and evaluate whether a reportable release exists.</p>	<p>TRLIA's construction contractor will remove and dispose offsite of all site structures impacted by construction or in the setback area. Upon completion of AGT, drums and stained soil (if encountered) removal, TRLIA inspectors will screen the underlying soil to confirm petroleum staining, where observed in soil beneath AGT fill pipes and drums, is limited to ground surface. If there is evidence of contamination at depth (e.g. stained soils, petroleum odors, etc), TRLIA will conduct environmental sampling and testing of soil samples. If concentrations of contaminants exceed allowable levels, TRLIA will perform remedial activities.</p>

GENERAL RECOMMENDATIONS

General Recommendation	Trlia Planned Resolution
<p>Monitoring of soil conditions in the area of dense brush, soil piles or plowings, irrigation wellheads, pump stations, aboveground storage tanks, and beneath garages if disturbed during construction. Visibility was limited in areas of dense brush, and there is a higher likelihood of subsurface soil contamination in equipment maintenance and fuel storage areas.</p>	<p>TRLIA inspectors will monitor soil conditions in areas impacted by construction or in the setback area during setback levee construction. If contaminated soil is encountered TRLIA will remove the contaminated soil and perform additional soil screening.</p>
<p>In setback area or areas of required project excavation: inventory, abandonment, and decommissioning of residential septic systems and leach fields, and residential and irrigation wells in accordance with regulations. These features may be a potential conduit for contaminant transport.</p>	<p>TRLIA's construction contractor will inventory and decommission residential septic systems and leach fields in areas impacted by construction or in the setback area in accordance with Yuba County regulations.</p> <p>TRLIA's construction contractor will destroy irrigation and residential wells in areas impacted by construction in accordance with Yuba County regulations.</p> <p>Irrigation wells in the setback area will be retained for restoration and ongoing agricultural operations.</p>
<p>In areas of required project excavation: excavation of test pits in leach field locations and performing visual screening for the potential presence of hazardous materials in underlying soil.</p>	<p>TRLIA inspectors will excavate test pits in leach field locations in areas impacted by construction and perform visual screening for the potential presence of hazardous materials in underlying soil. If contaminated soil is encountered TRLIA will remove the contaminated soil and perform additional soil screening.</p>

Notes:

1. Feather River Setback Levee, Phase 1 Environmental Site Assessment, dated August 2007. Findings and Recommendations are summarized in Section 7.1.